BEN BELGHITH AMIR
Note: 12/20 (score total : 6/10)

+110/1/22+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Ben Belghith Amir

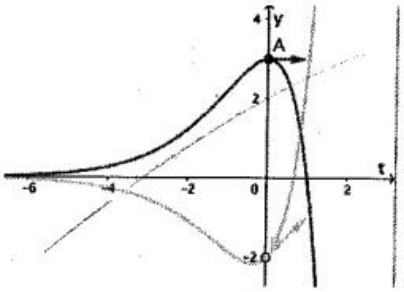
**Attention à ne pas vous tromper,
toute erreur invalide la copie !**

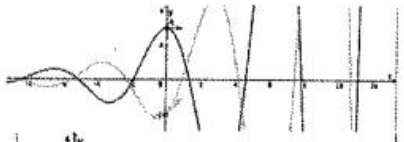
Fdm2 – Printemps 2019

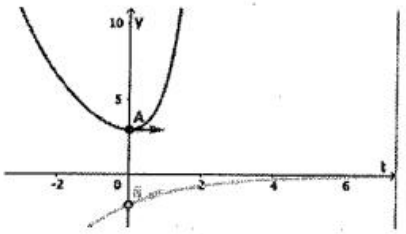
Règlement – L'épreuve dure 40 minutes. Les calculatrices sont interdites. Les téléphones portables doivent être éteints. Il n'est admis de consulter aucun document.
Les questions ont une seule bonne réponse, qui vaut 4 points. Cochez une seule réponse par question.

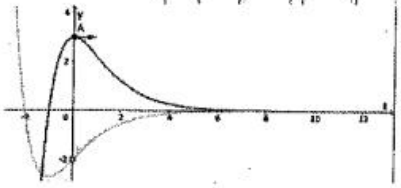
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

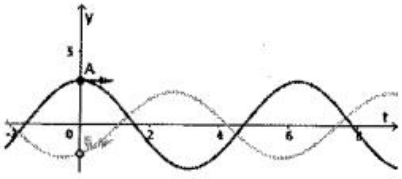
0/2

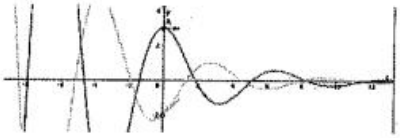






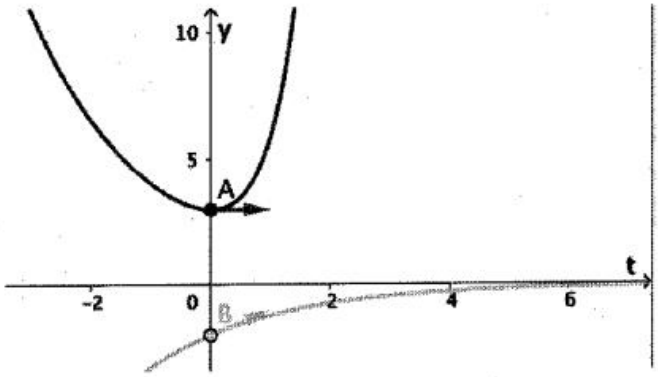






$\frac{9}{4} - 4 \quad \frac{9}{4} - \frac{16}{4} = \frac{-7}{4}$

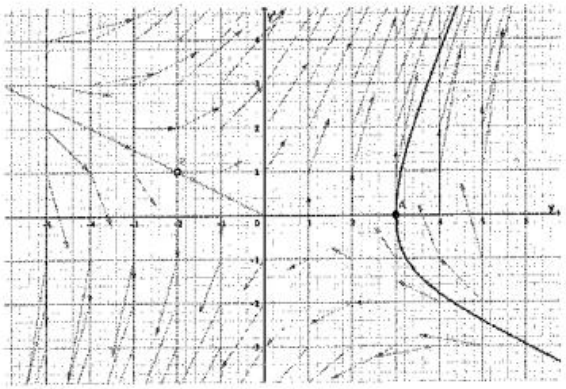
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



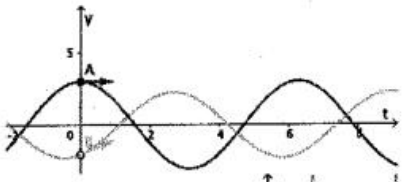
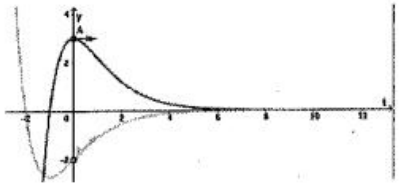
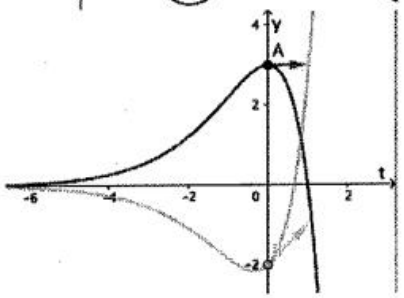
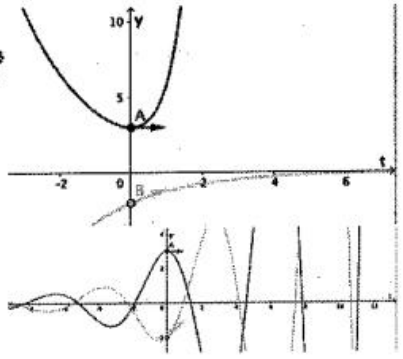
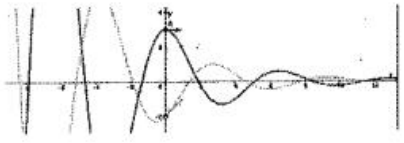
0/2

- ☐ $y'' - 2y' + y = 0$
- ☒ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☒ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' + 2y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



2/2

- ☐ 
- ☐ 
- ☐ 
- ☒ 
- ☐ 
- ☐

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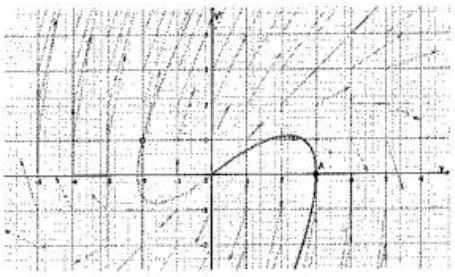
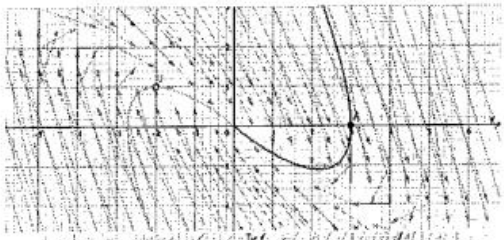
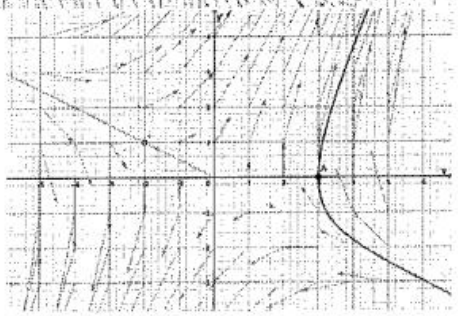
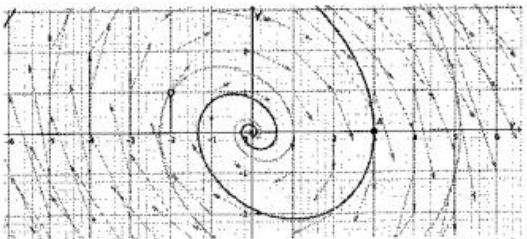
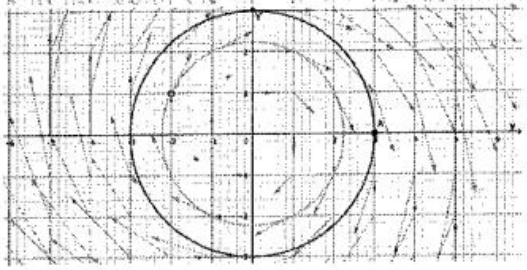
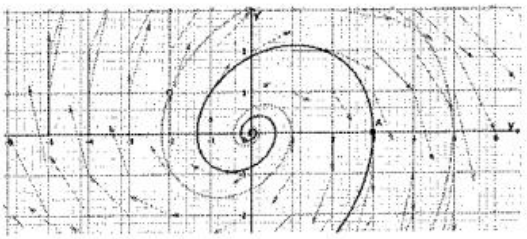
☐ 

☐ 

☐ 

☒ 

☐ 

☐ 

2/2

$r^2 + \frac{r}{2} + 1 = 0$

$\left(\frac{1}{2}\right)^2 - 4 \times 1 = \frac{1}{4} - 4 = -\frac{15}{4} \simeq -4$

$\arctan(1) = \frac{\pi}{4}$

$\frac{3}{4}$

$x > 0$

$1 + x \geq$

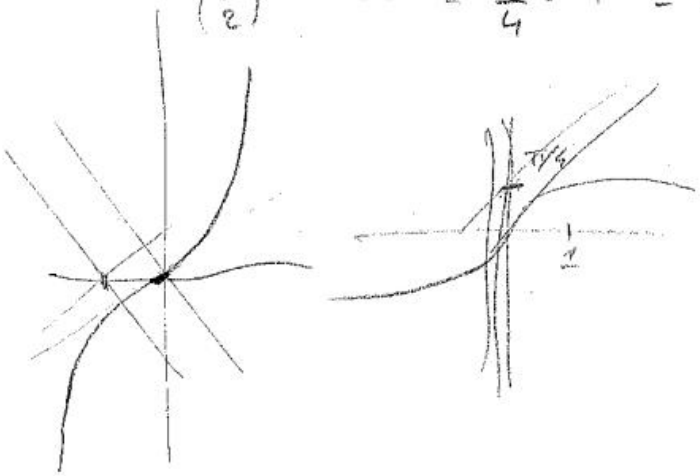
$1 - x \leq$

$x \geq \leq$

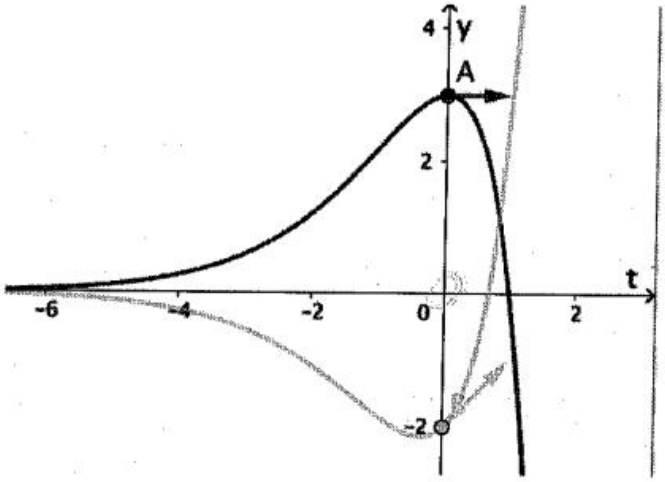
$1 + \tan^2$

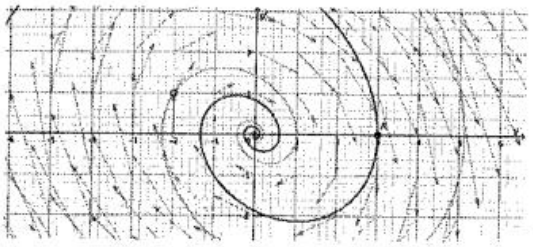
$\frac{1}{1 + 1^{105^2}}$

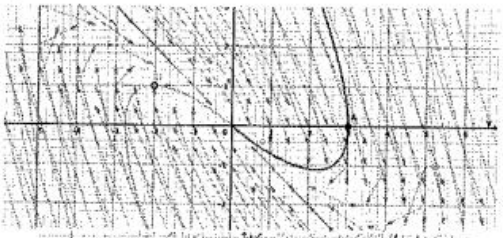
$\frac{1}{1 + \left(1 - \frac{x^2}{2} + \frac{x^4}{4!} + \frac{x^6}{6!}\right)}$



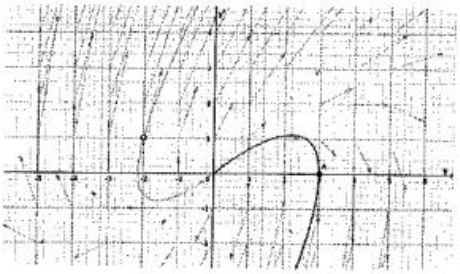
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

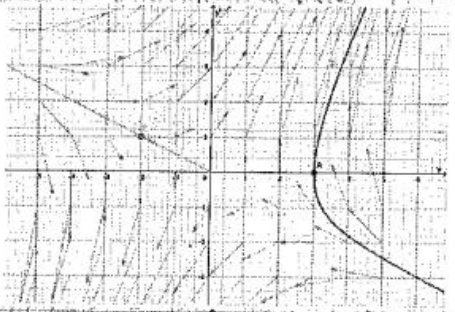


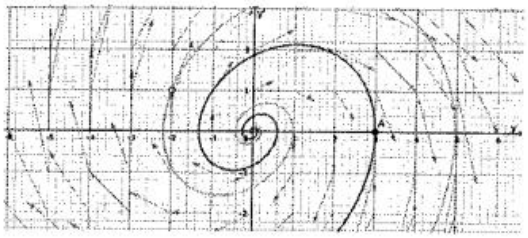
☐ 

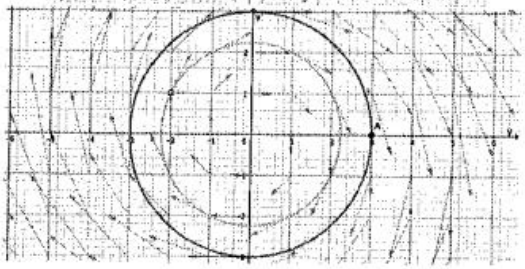
☐ 

2/2

☒ 

☐ 

☐ 

☐ 

BERNARD HUGO
Note: 16/20 (score total : 8/10)

+125/1/24+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
BERNARD Hugo

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Fdm2 – Printemps 2019

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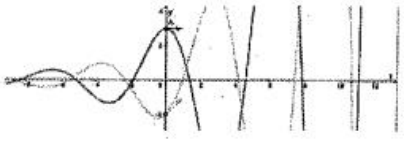
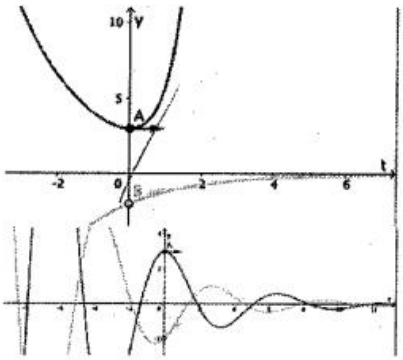
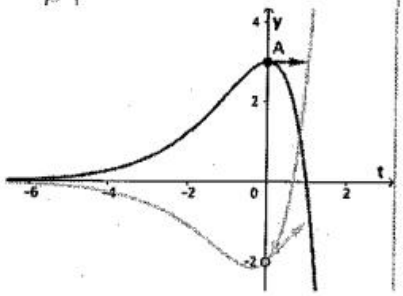
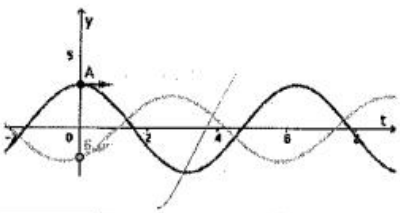
0/2









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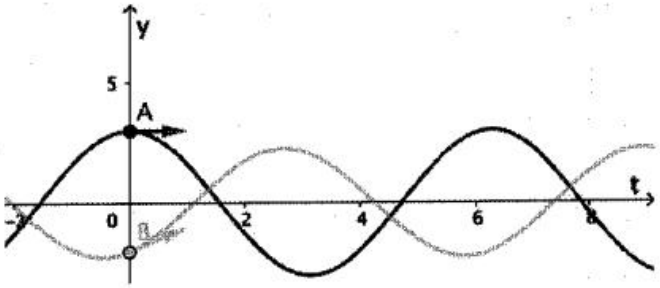

2/2

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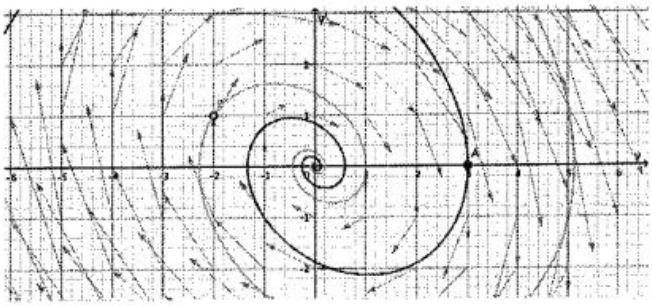

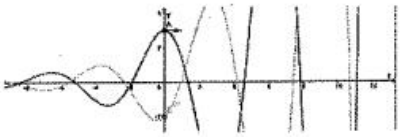

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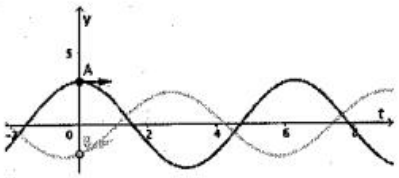

2/2

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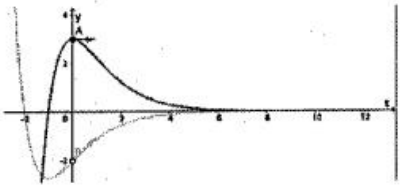

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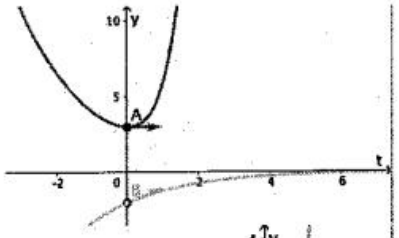

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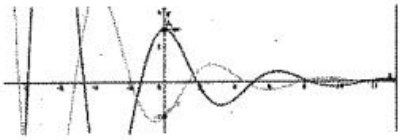

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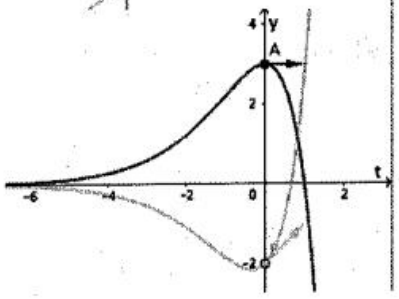

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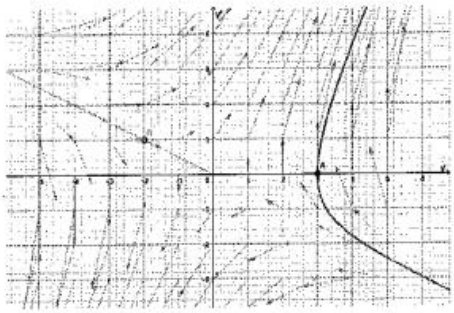
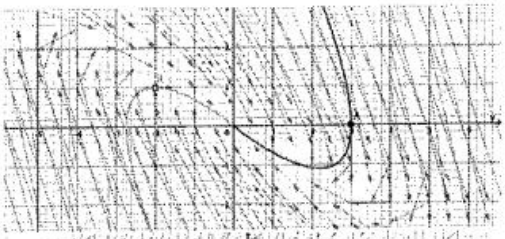
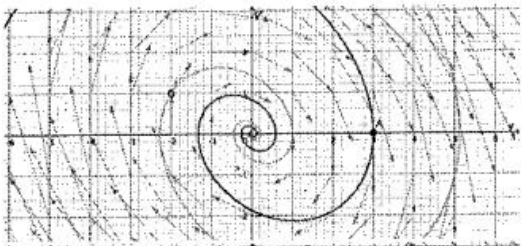
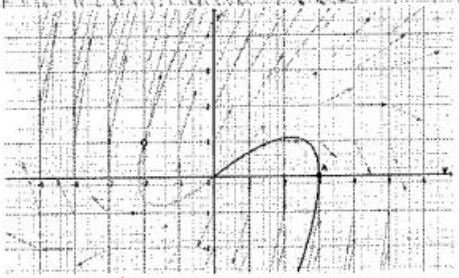
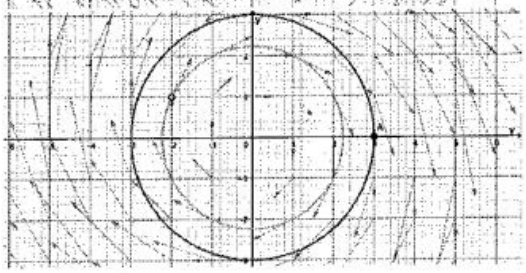
2/2

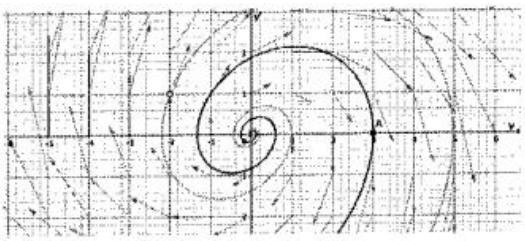
☒ 

☐ 

☐ 

☐ 

☐ 

☐ 

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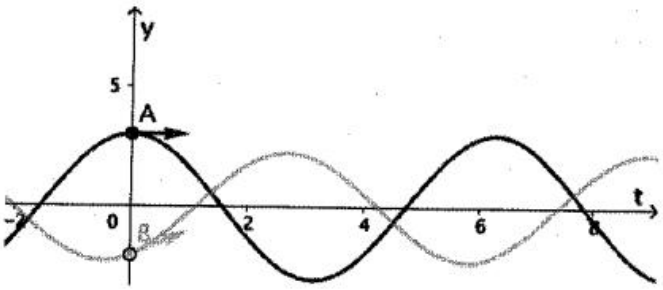
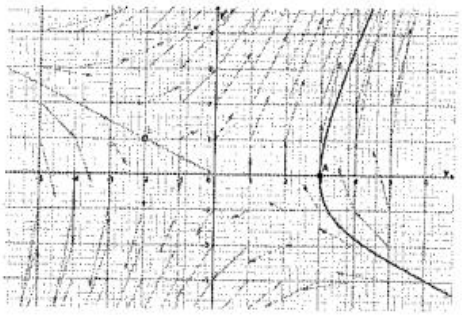
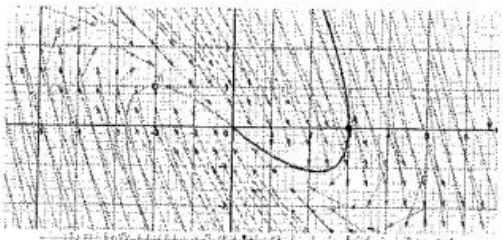
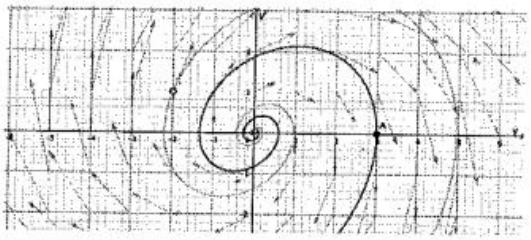


☐ 

☐ 

☐ 

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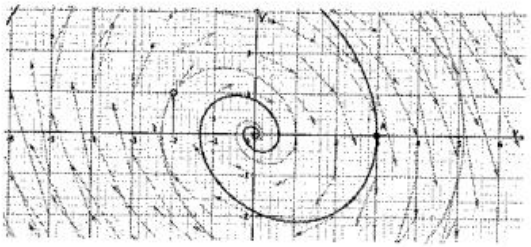
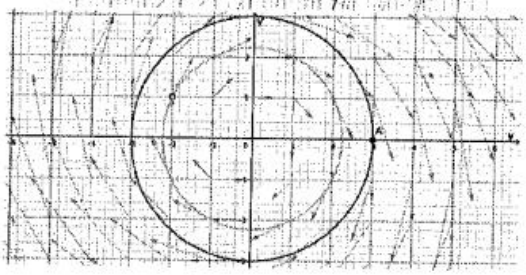
☐ 

☒ 

2/2

BETHENCOURT FLORIAN
Note: 8/20 (score total : 4/10)

+119/1/17+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Bethencourt Florian

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Fdm2 – Printemps 2019

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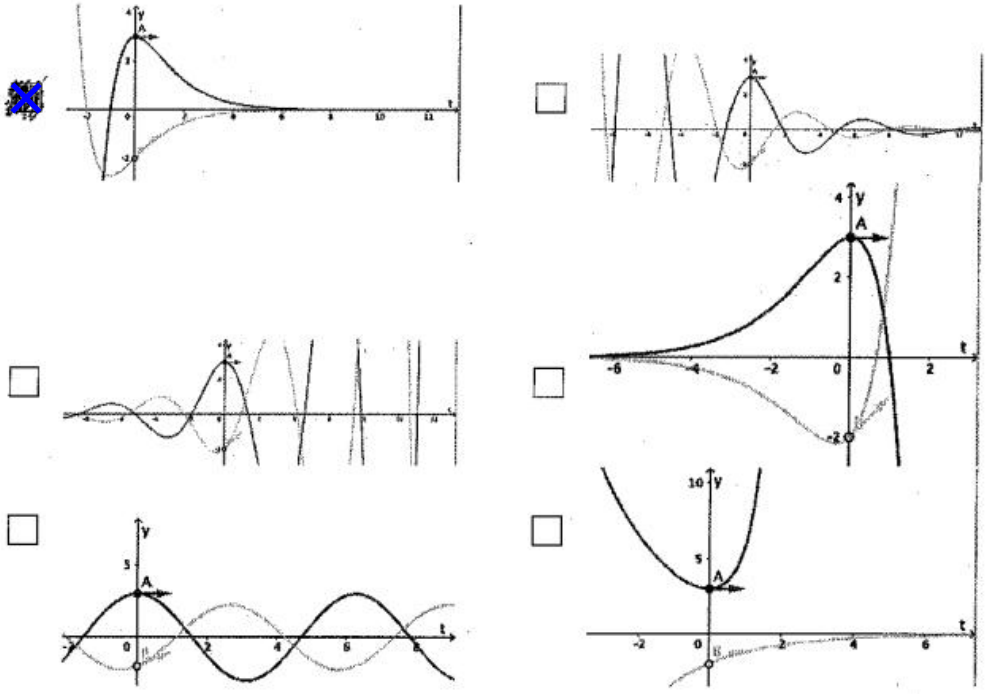
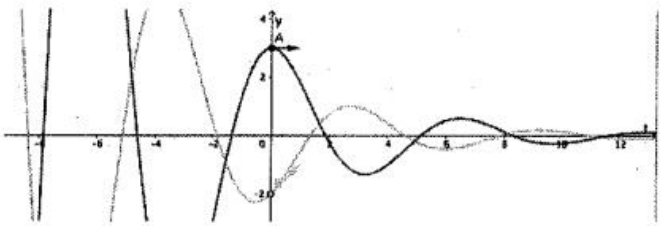
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' + 2y' + y = 0$.



2/2

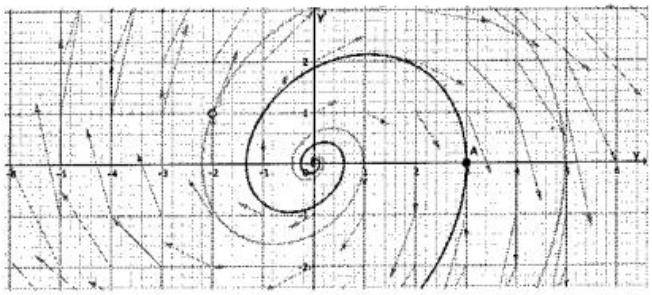
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

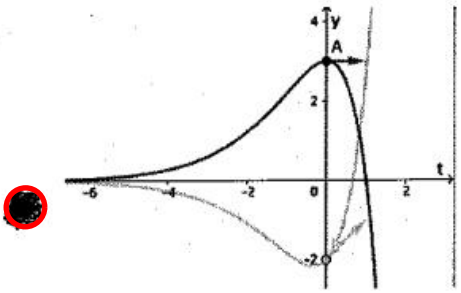


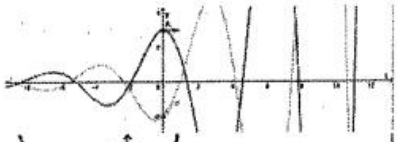
2/2

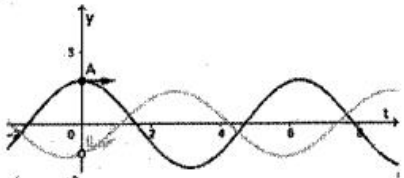
- ☐ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' + 2y' + y = 0$
- ☒ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' - 2y' + y = 0$

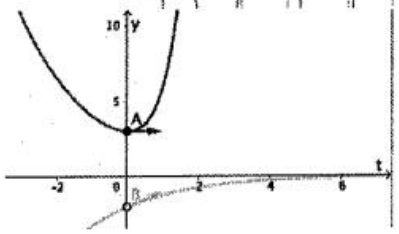
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

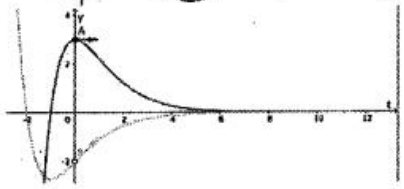


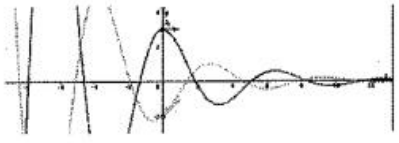








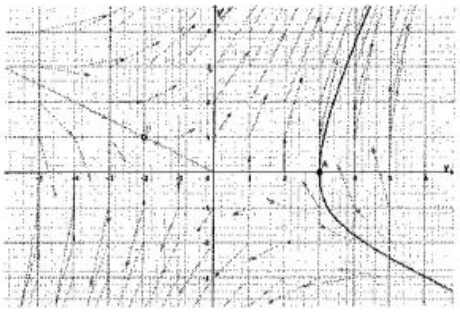


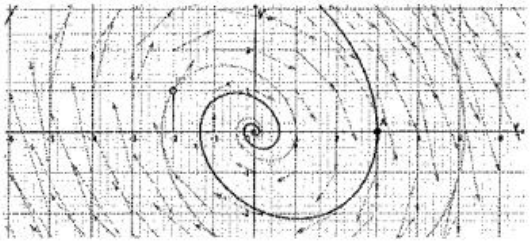


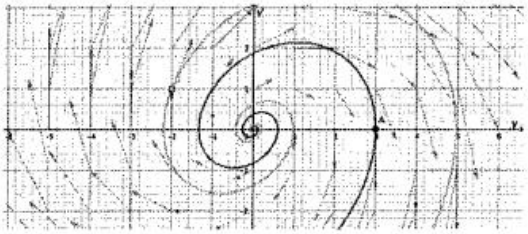
0/2

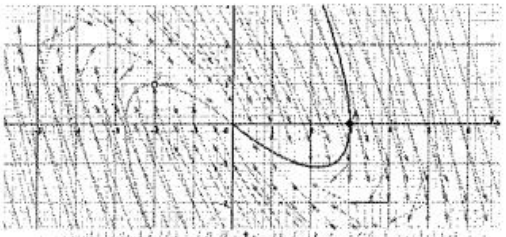
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + \frac{1}{2}y' + y = 0$.

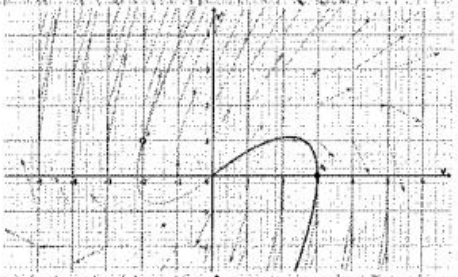
0/2

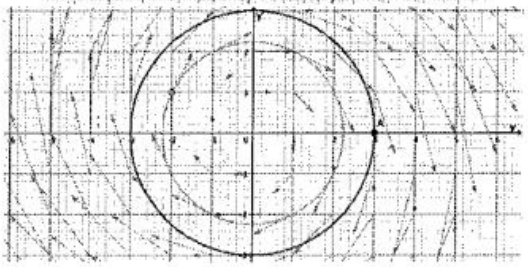
☐ 

☒ 

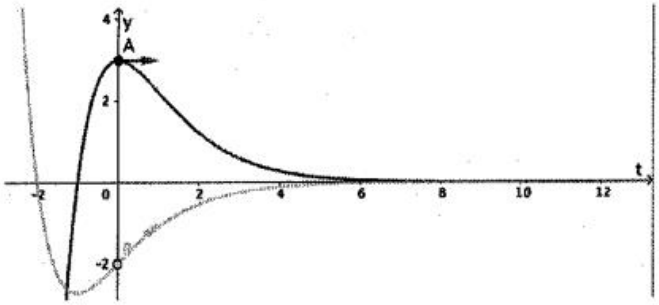
☐ 

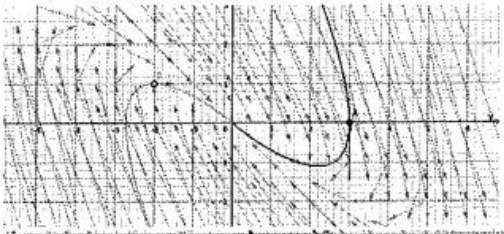
☐ 

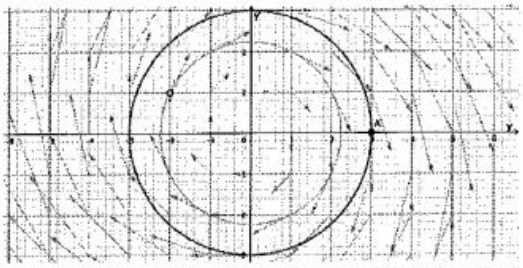
☐ 

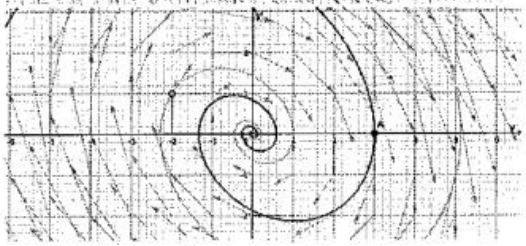
☐ 

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☒ 

☐ 

☐ 

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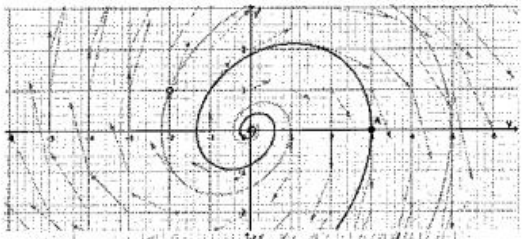
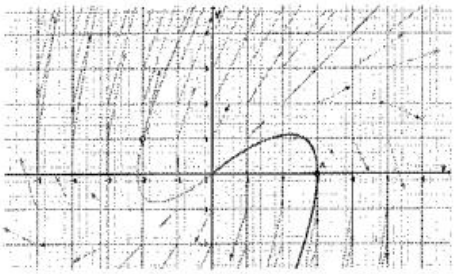
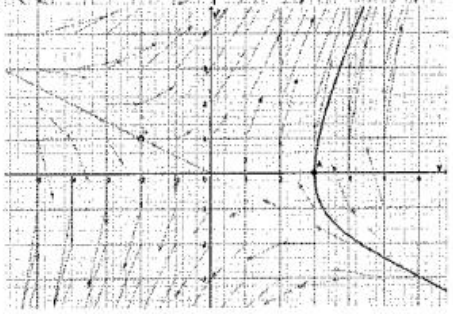
☒ 

☐ 

☐ 

CESCHIA ARTHUR
Note: 12/20 (score total : 6/10)

+103/1/19+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Ceschia Arthur

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Fdm2 – Printemps 2019

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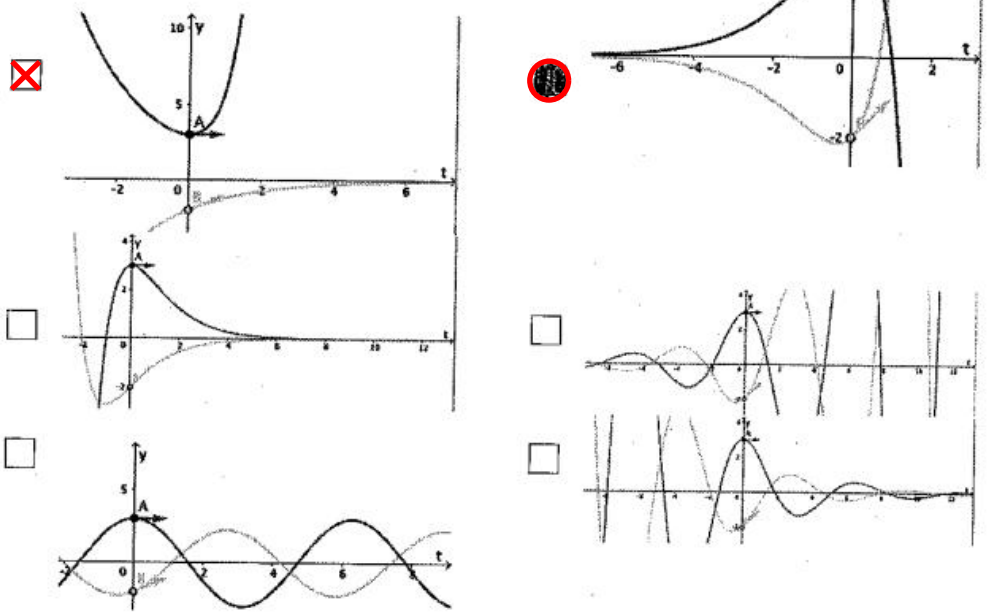
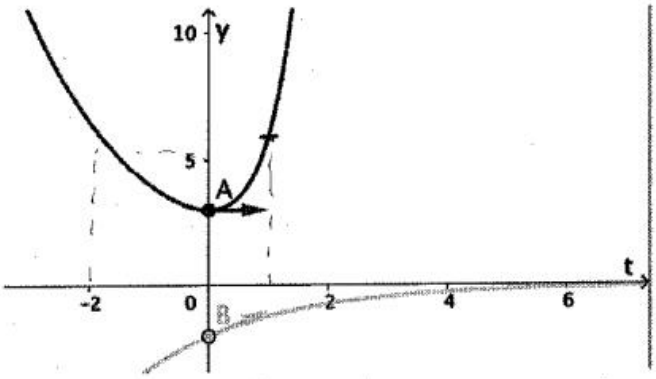
0/2



Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



0/2

- [x] $y'' - \frac{3}{2}y' - y = 0$
- [x] $y'' + 2y' + y = 0$
- [ ] $y'' - 2y' + y = 0$
- [ ] $y'' - \frac{1}{2}y' + y = 0$
- [ ] $y'' + y = 0$
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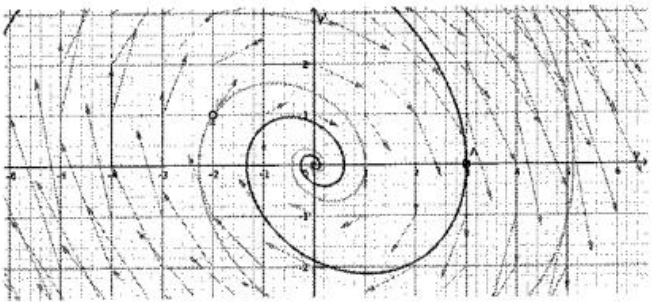
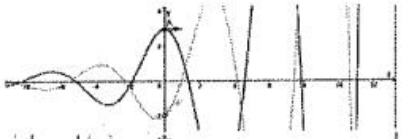
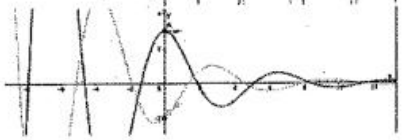
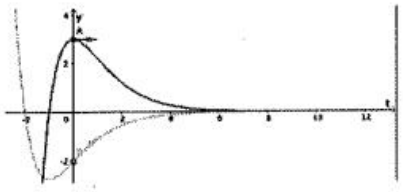
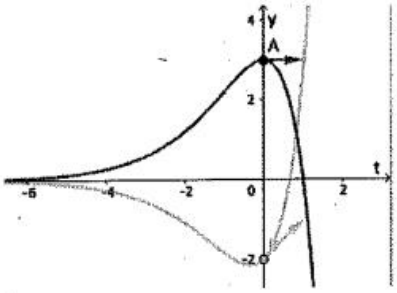
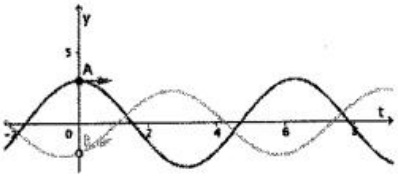
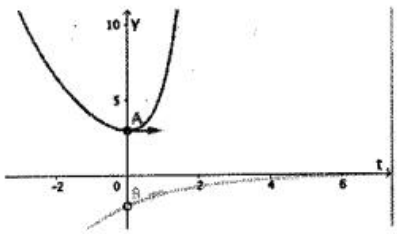


2/2

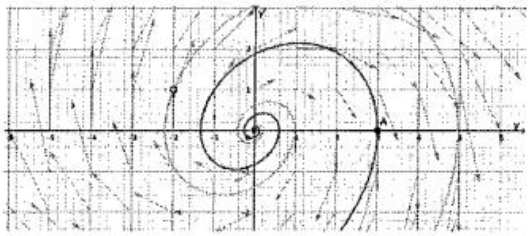
- [ ] 
- [x] 
- [ ] 
- [ ] 
- [ ] 
- [ ] 

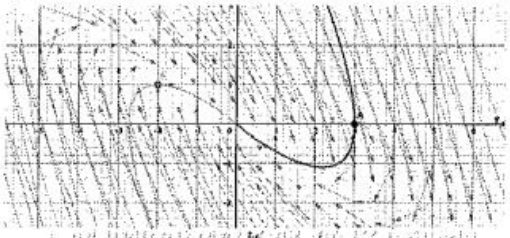
Cecilia Math.

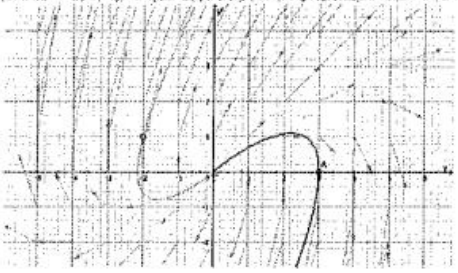
[redacted]

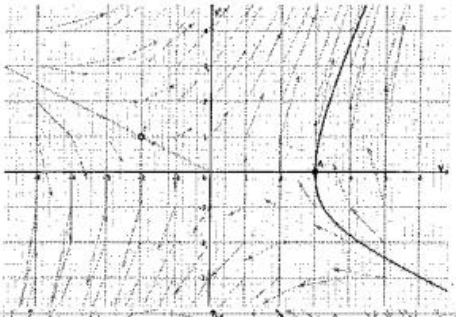
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + 2y' + y = 0$.

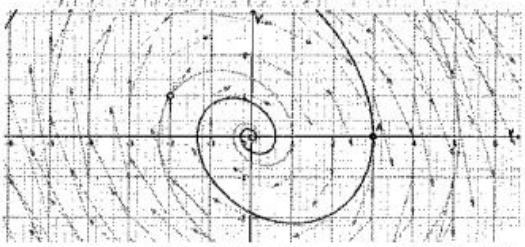
2/2

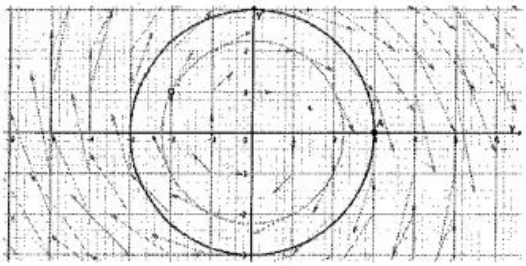
☐ 

☒ 

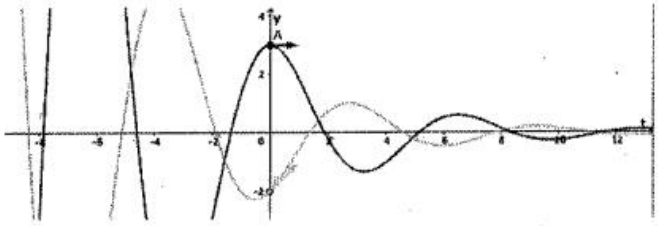
☐ 

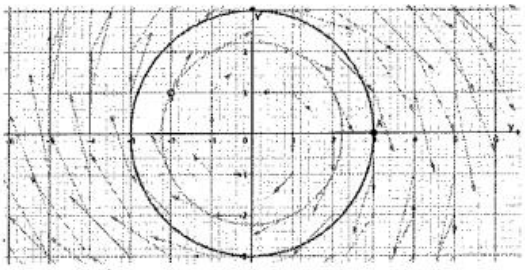
☐ 

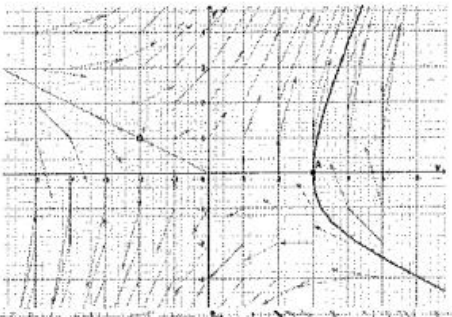
☐ 

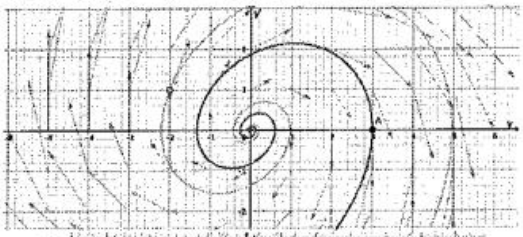
☐ 

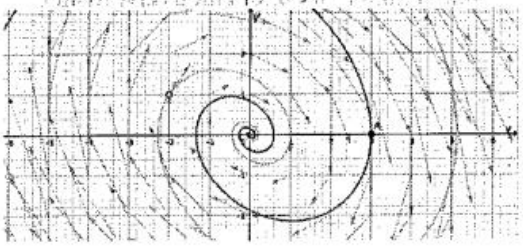
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

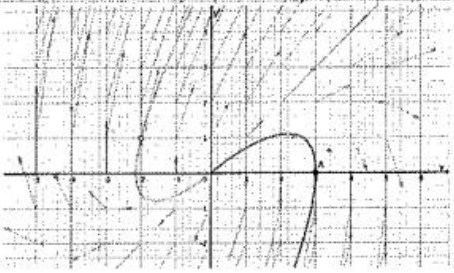


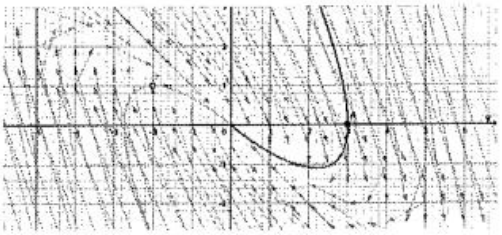
☐ 

☐ 

☐ 

☒ 

☐ 

☐ 

2/2

COSIALLS MAXIME
Note: 0/20 (score total : 0/10)

+108/1/30+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
COSIALLS Maxime

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Fdm2 – Printemps 2019

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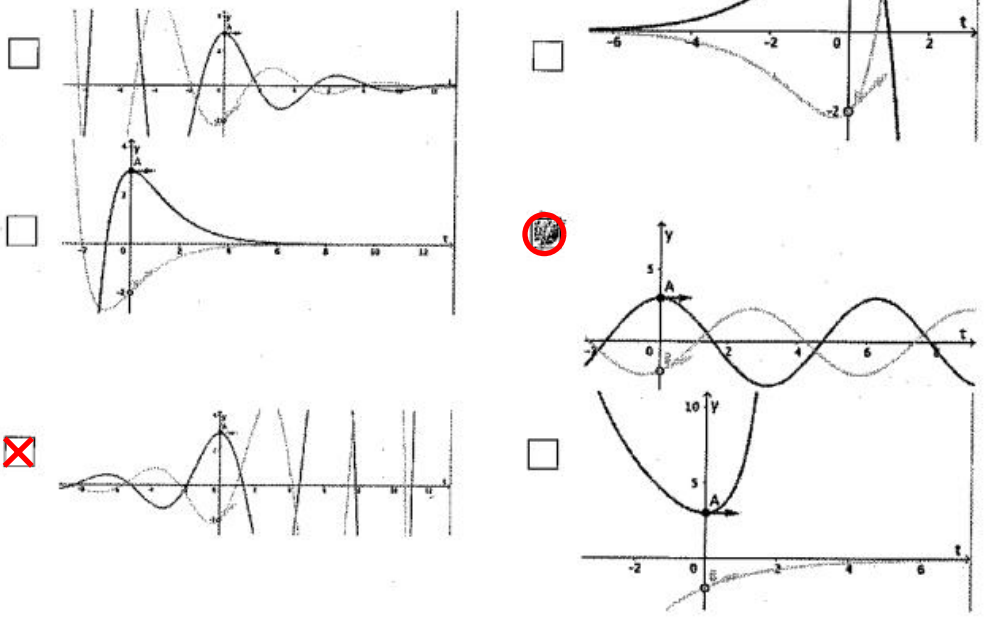
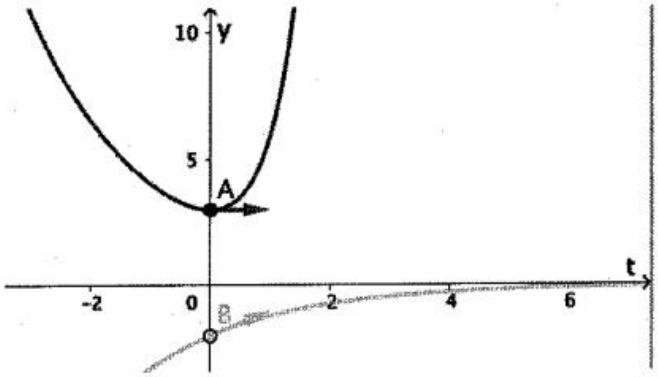
0/2



Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



0/2

- ☐ $y'' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☒ $y'' - 2y' + y = 0$
- ☐ $y'' + 2y' + y = 0$
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☒ $y'' - \frac{3}{2}y' - y = 0$

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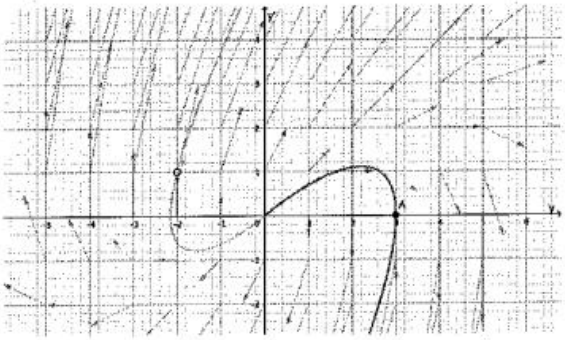
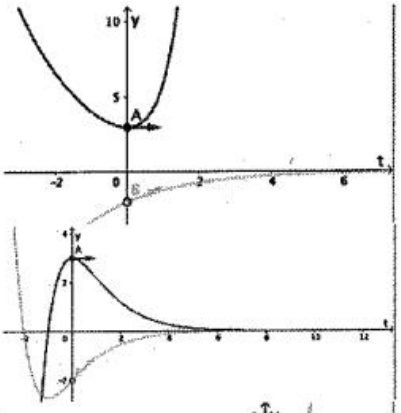
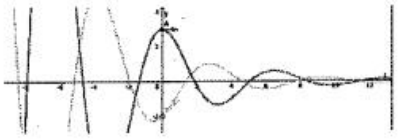
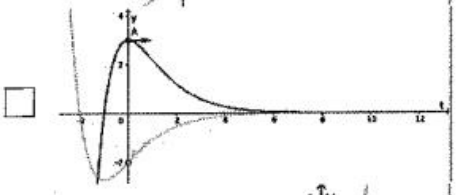
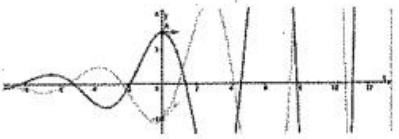
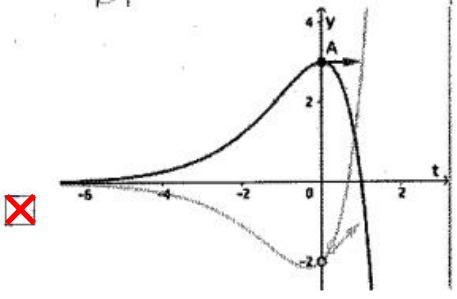
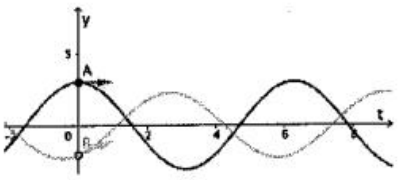


0/2

- ☒ 

- ☐ 
- ☐ 

- ☐ 
- ☒ 

- ☐ 

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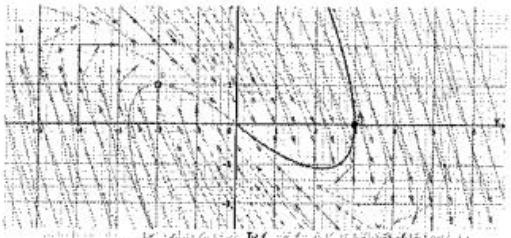
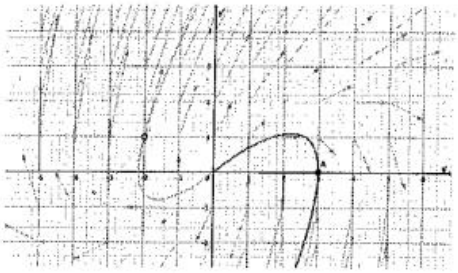
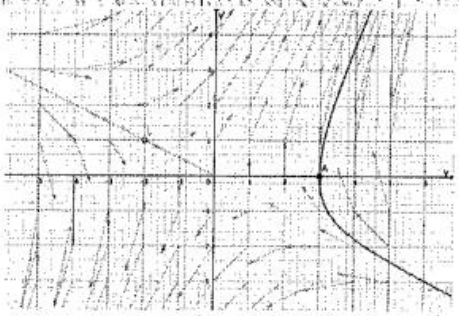
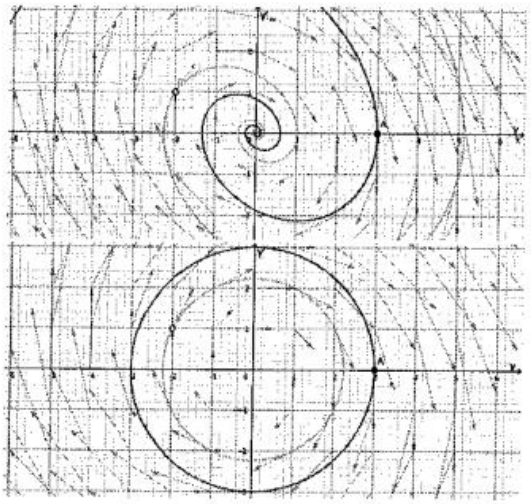
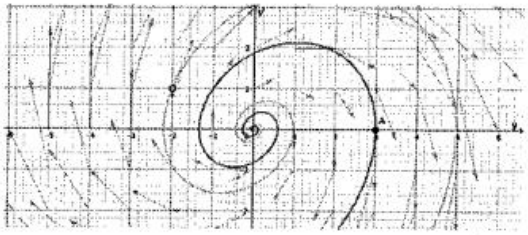
0/2

[x] 

[ ] 

[ ] 

[x] 

[ ] 

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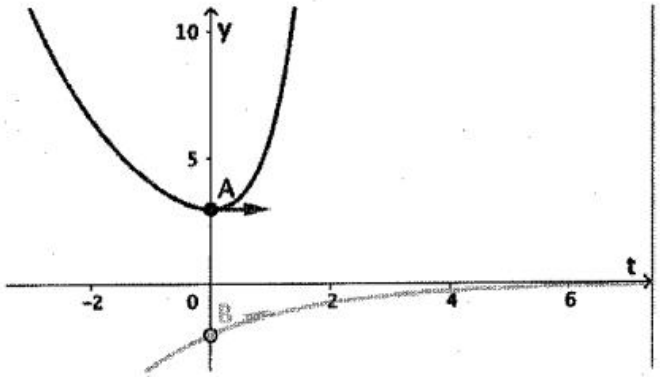
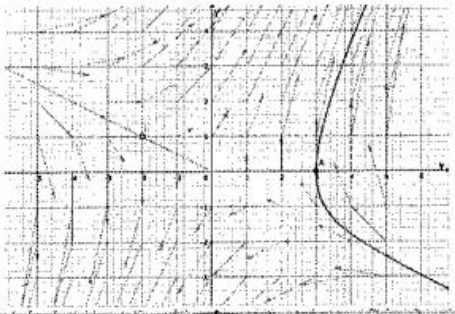
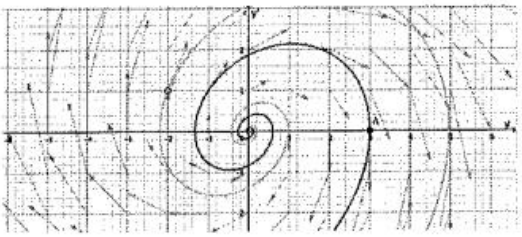
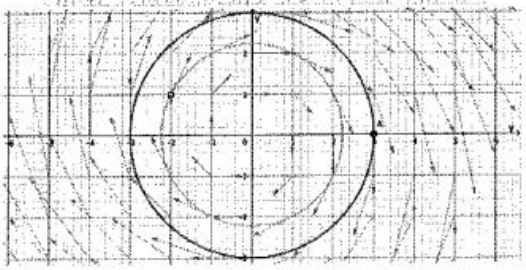
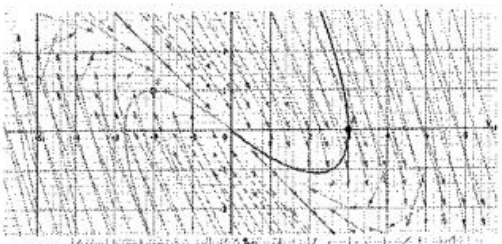
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

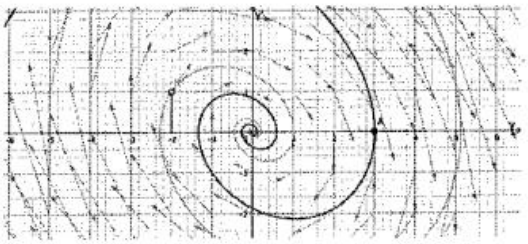


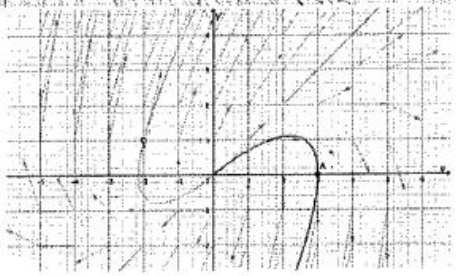
☒ 

☐ 

☐ 

☐ 

☐ 

● 

0/2

COTHENET JADE
Note: 8/20 (score total : 4/10)

+102/1/23+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
COTHENET Jade

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Fdm2 – Printemps 2019

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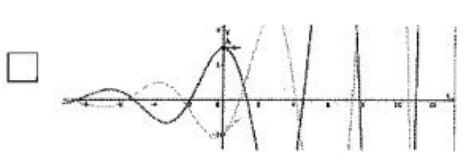
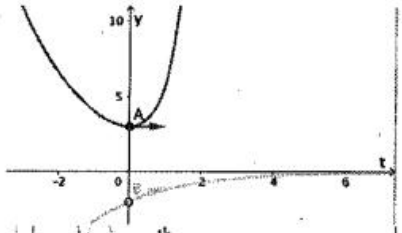
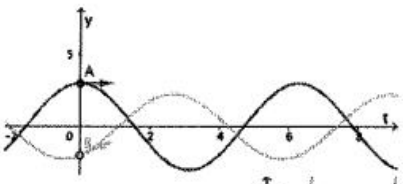
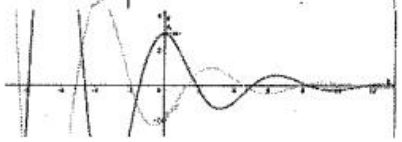
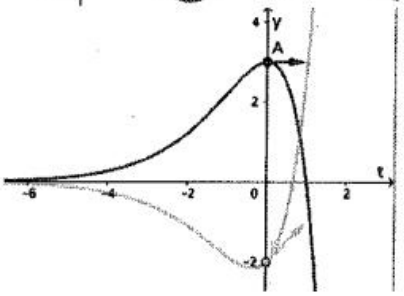
0/2

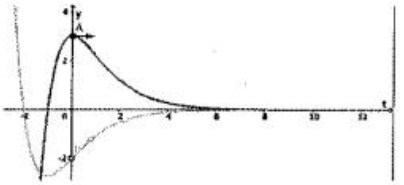




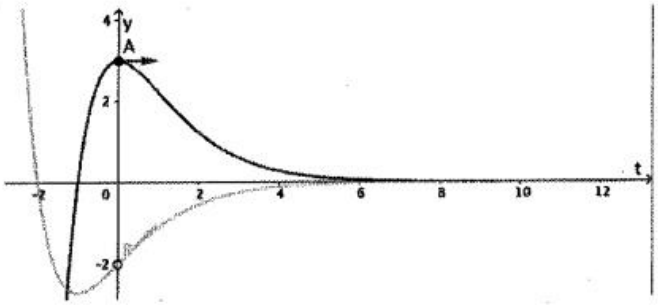








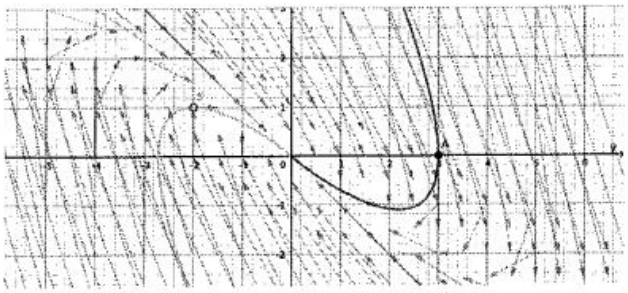
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

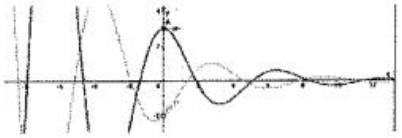


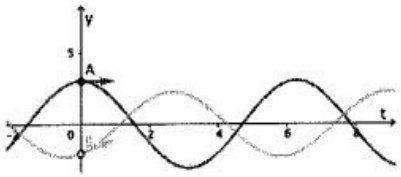
0/2

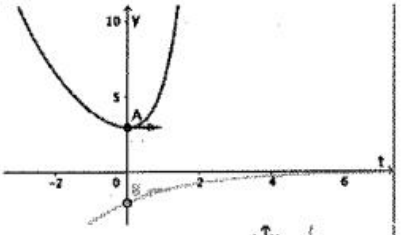
- [x] $y'' - 2y' + y = 0$
- [ ] $y'' + 2y' + y = 0$
- [ ] $y'' + y = 0$
- [ ] $y'' - \frac{1}{2}y' + y = 0$
- [ ] $y'' - \frac{3}{2}y' - y = 0$
- [ ] $y'' + \frac{1}{2}y' + y = 0$

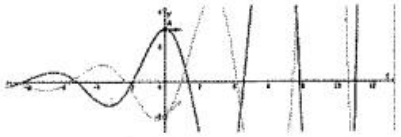
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

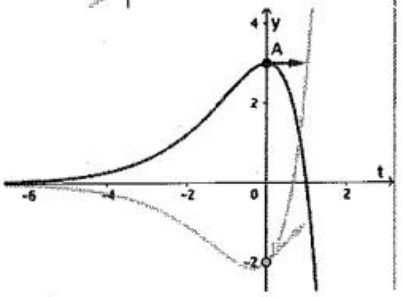


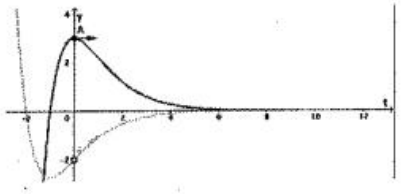












2/2

- [ ]
- [ ]
- [ ]
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- [x]

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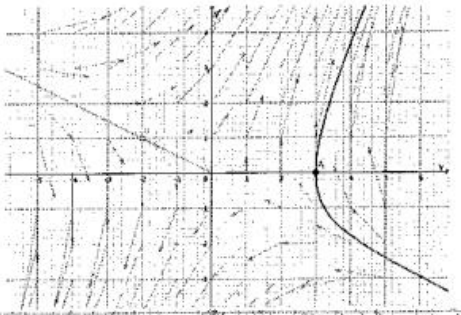
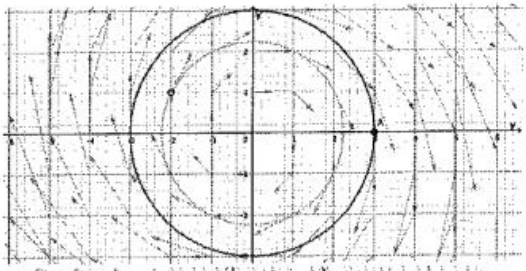
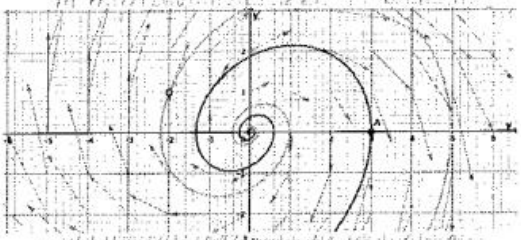
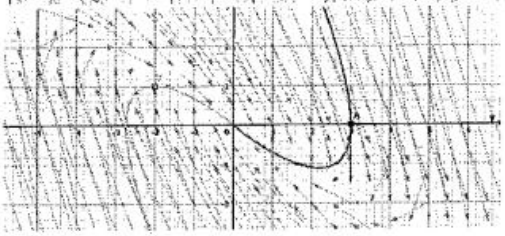
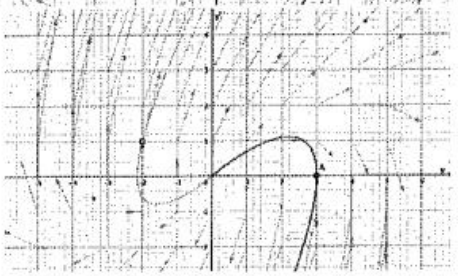
0/2

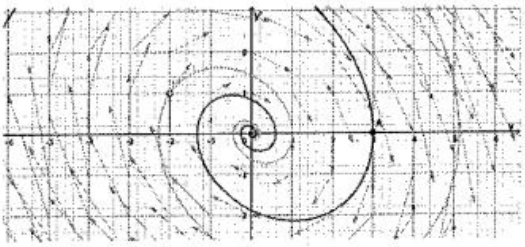
☐ 

● 

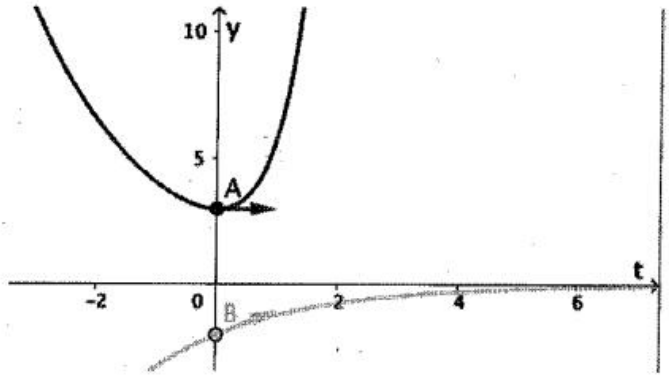
☐ 

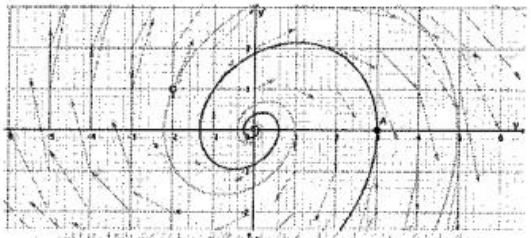
☒ 

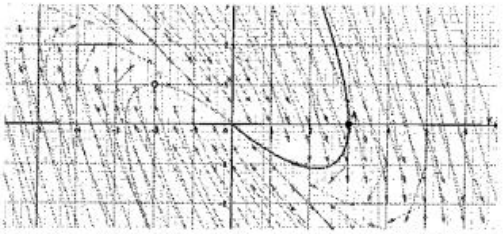
☐ 

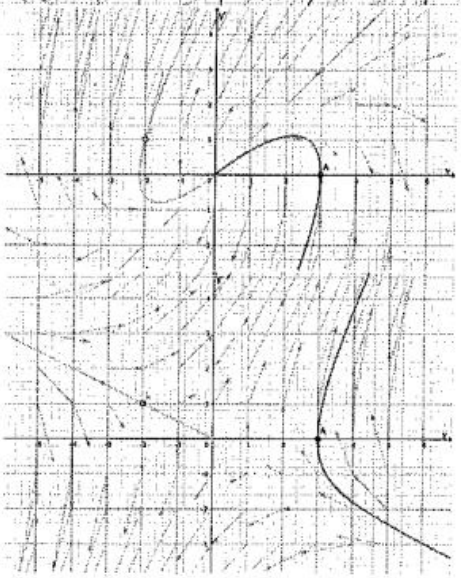
☐ 

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☐ 

☐ 

☐ 

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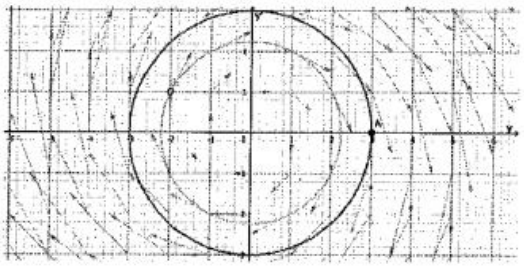
☐ 

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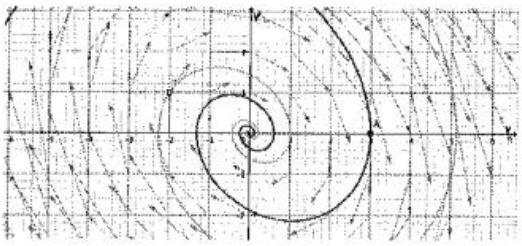
☐ 

DEGROODT EDGAR
Note: 20/20 (score total : 10/10)

+124/1/28+

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Nom et prénom :
DE GROODT Edgar

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2 2 2 2 2 2 2 2
3 3 3 3 3 3 3 **3**
4 4 4 4 4 4 4 4
5 5 5 5 5 5 5 5
6 6 6 6 6 6 6 6
7 7 7 7 7 7 7 7
8 8 **8** 8 **8** 8 **8** 8
9 9 9 9 9 9 9 9

Fdm2 – Printemps 2019

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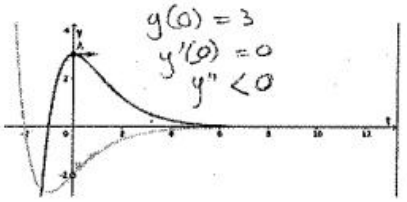
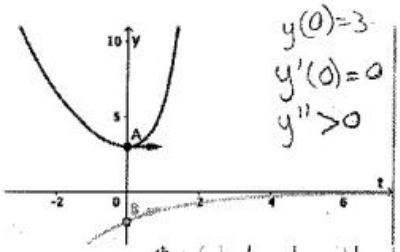
☐ 

☐ 

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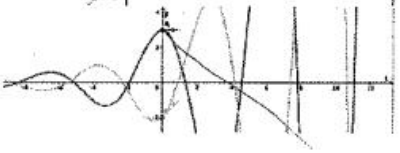
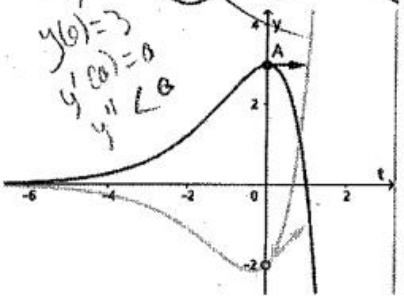
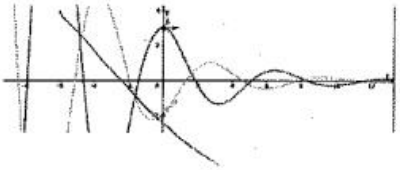
☐ 

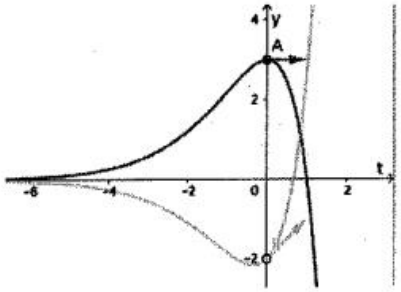
☒ 

☐ 

2/2

Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

$\alpha > 0$
$y(0) = 3$
$y'(0) = 0$
$y'' < 0$



2/2

- ☐ $y'' - \frac{3}{2}y' - y = 0$
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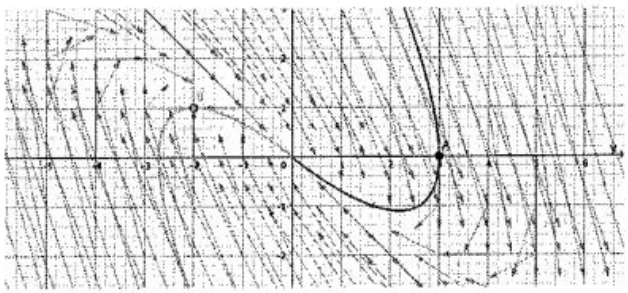
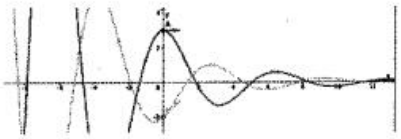
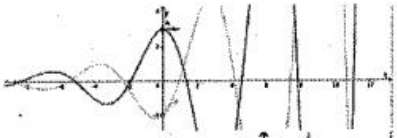
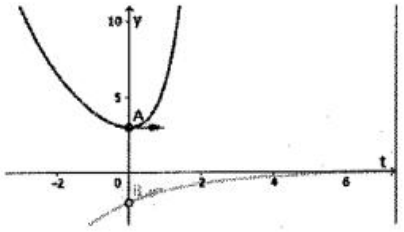
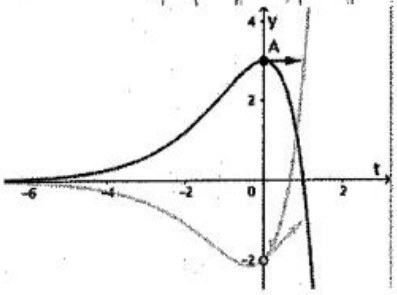
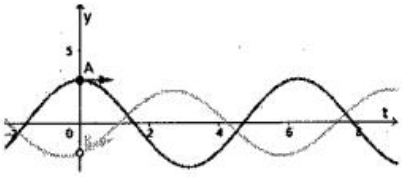
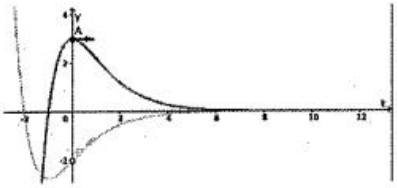


- ☐ 
- ☐ 
- ☐ 

- ☐ 

- ☐ 

- ☒ 

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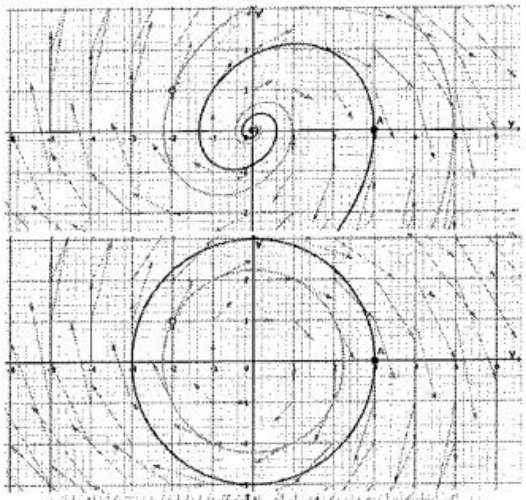
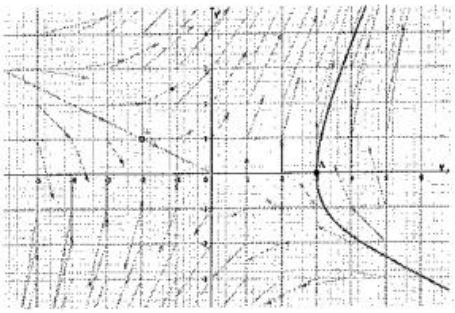
☐ 

☐ 

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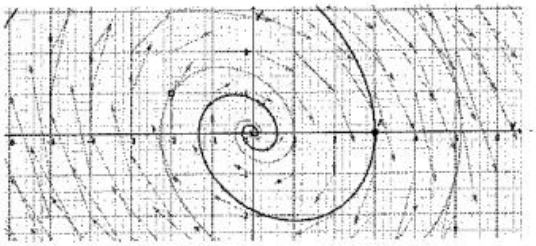
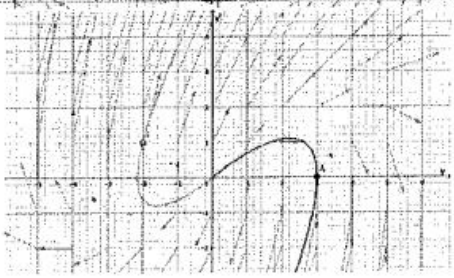
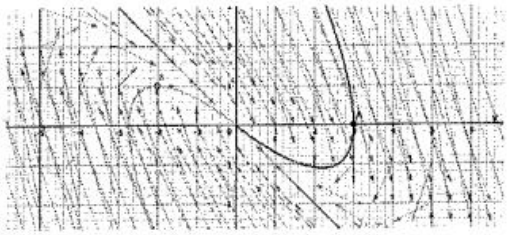
☒ 

☐ 

☐ 

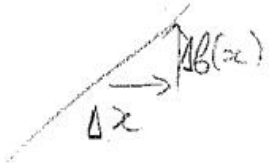
2/2

$y'' = -\frac{1}{2}y' - \frac{1}{2}y$

$\Delta = \left(\frac{1}{2}\right)^2 - 4$

$\Delta = \frac{1}{4} - 4 = -\frac{15}{16}$

$\mathcal{L}\ y'' = -y' - y$

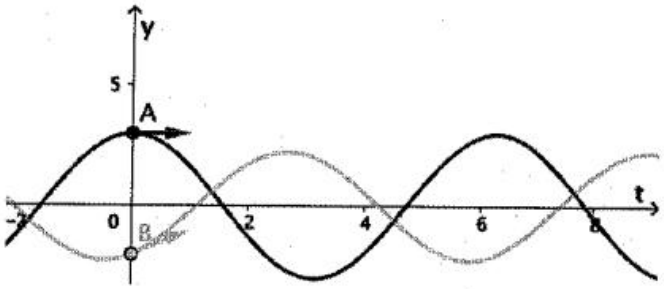


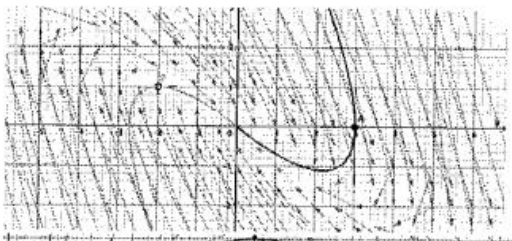
pente

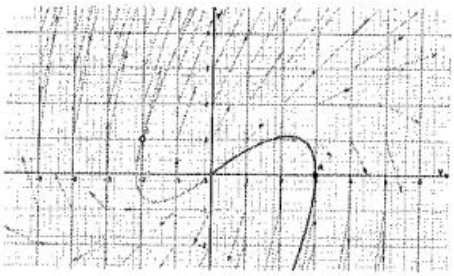
[redacted]

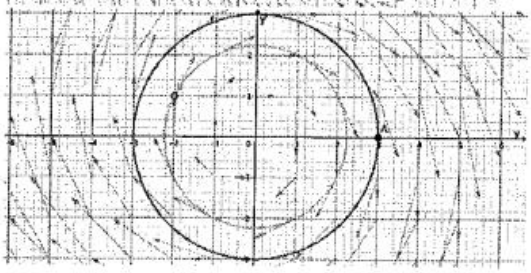
+124/4/25+

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☐ 

☐ 

☒ 

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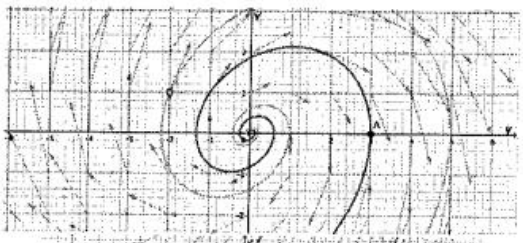
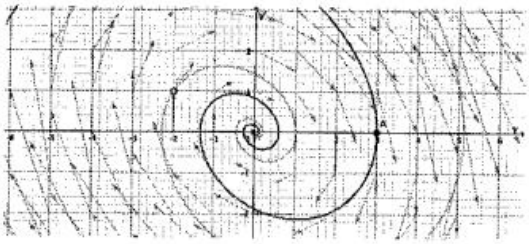
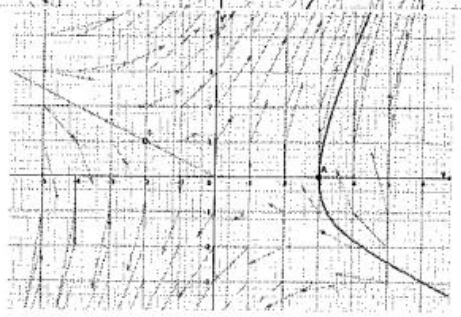
☐ 

☐ 

☐ 

DESRUES TANGUY
Note: 8/20 (score total : 4/10)

+116/1/29+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
DESRUES Tanguy

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Fdm2 – Printemps 2019

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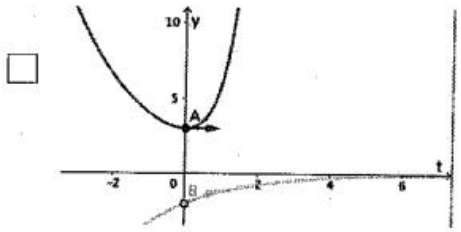
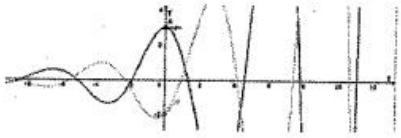
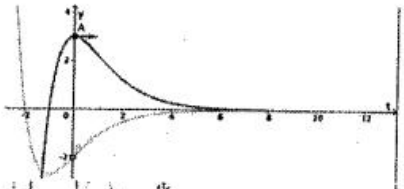
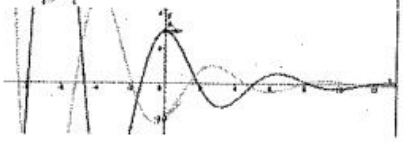
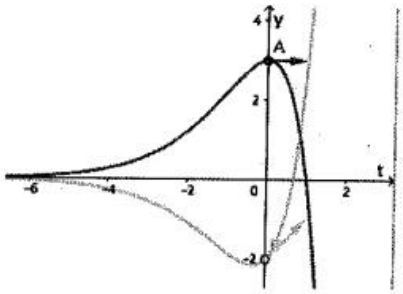
0/2

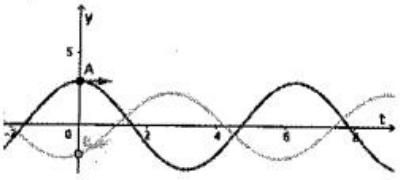




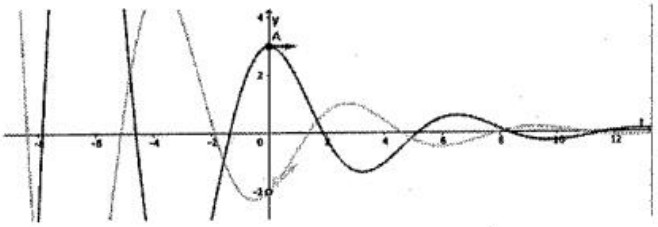








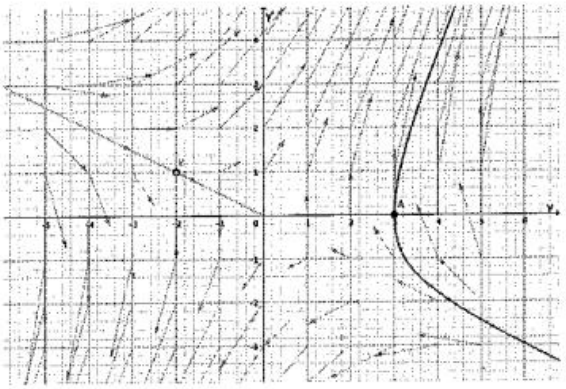
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



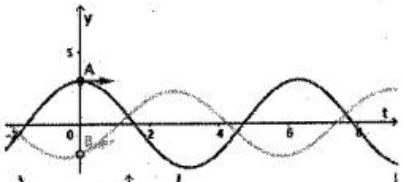
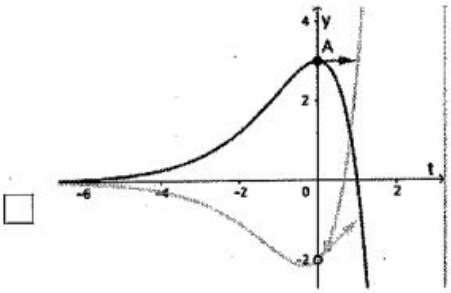
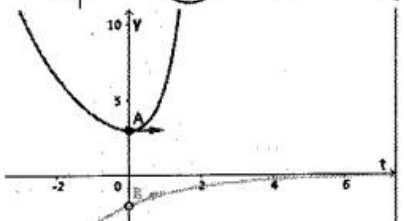
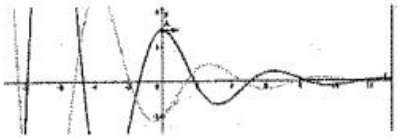
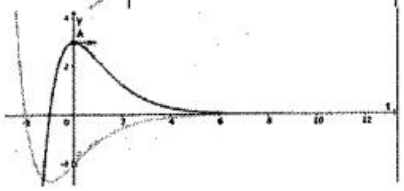
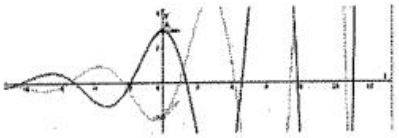
0/2

- ☐ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' + 2y' + y = 0$
- ☒ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☒ $y'' - 2y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

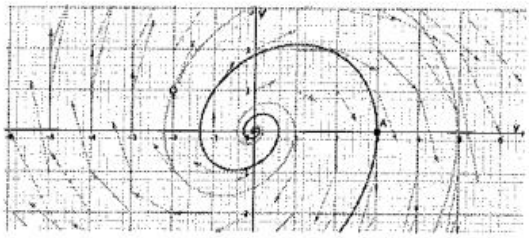


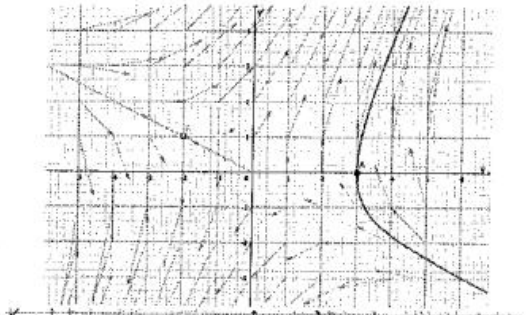
2/2

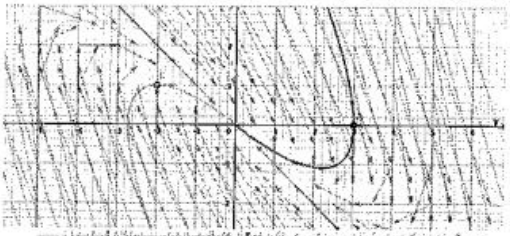
- ☐ 
- ☐ 
- ☒ 
- ☐ 
- ☐ 
- ☐ 

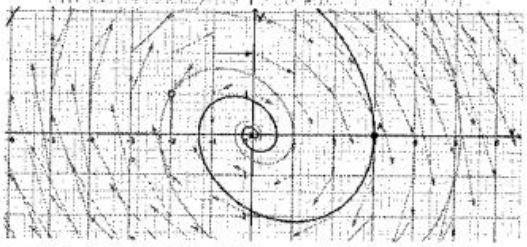
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + \frac{1}{2}y' + y = 0$.

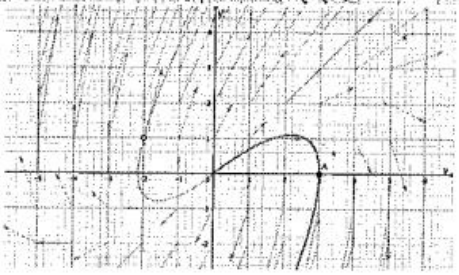
0/2

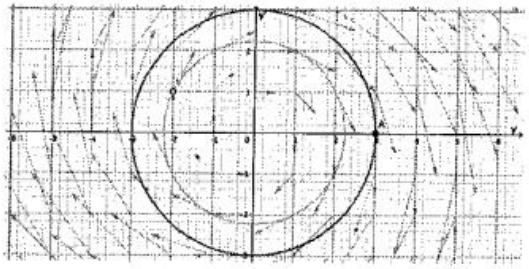
☐ 

☒ 

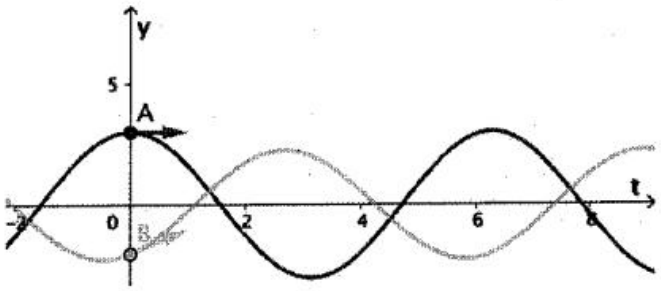
☒ 

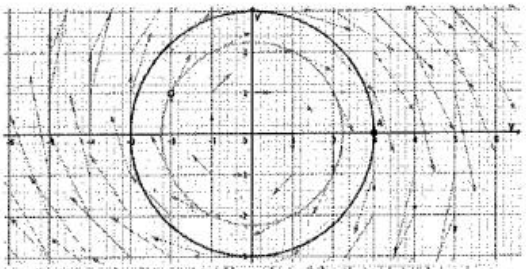
☒ 

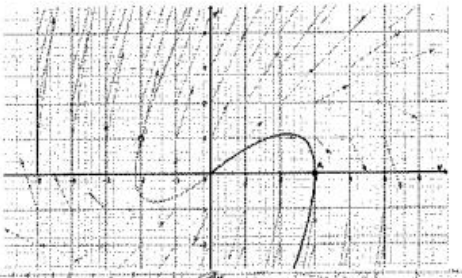
☐ 

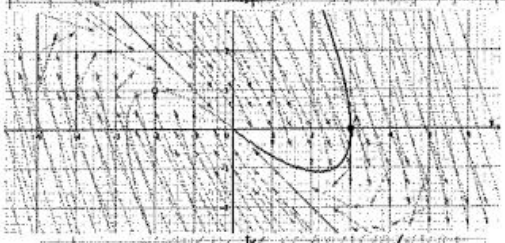
☐ 

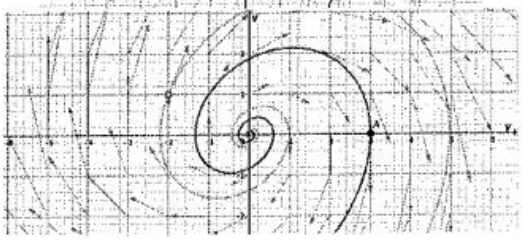
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

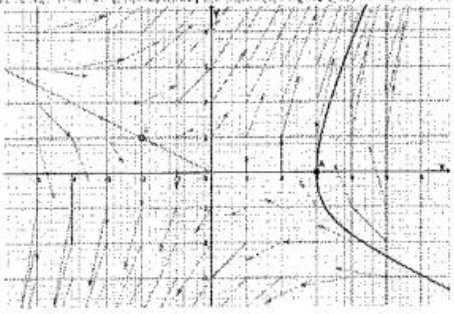


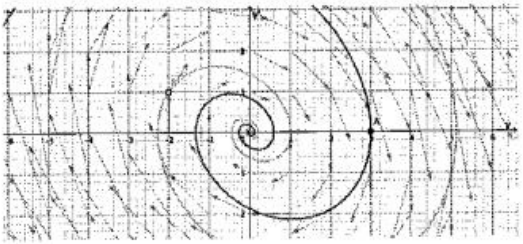
☒ 

☐ 

☐ 

☐ 

☐ 

☐ 

2/2

DREVETON NATHAN
Note: 16/20 (score total : 8/10)

+106/1/7+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
DREVETON Nathan

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Fdm2 – Printemps 2019

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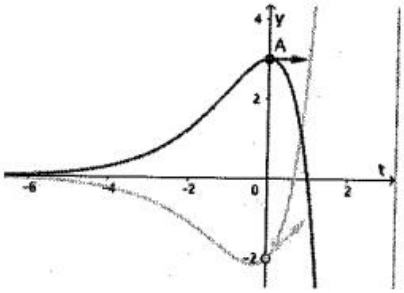
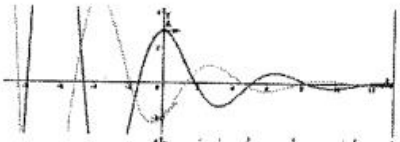
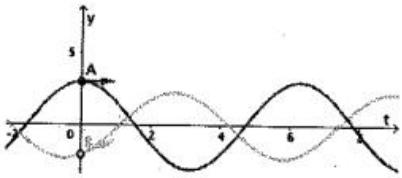
☐ 

☐ 

☐ 

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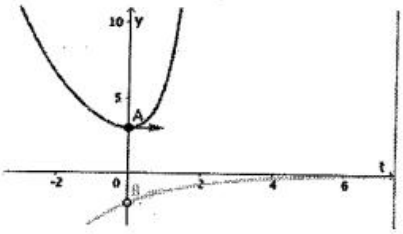
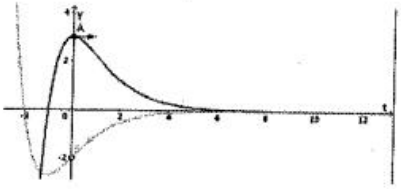
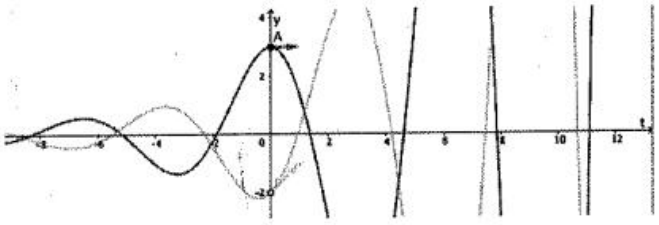
☐ 

☐ 

2/2

Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

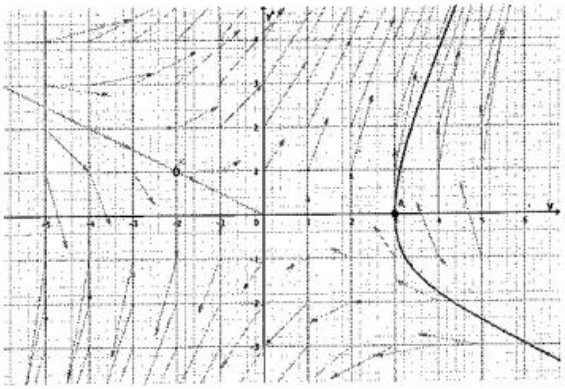


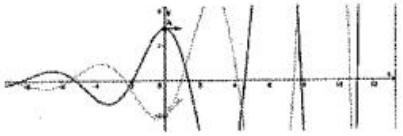
☐ $y'' + y = 0$ ☐ $y'' - 2y' + y = 0$ ☐ $y'' - 2y' + y = 0$ ☐ $y'' + \frac{1}{2}y' + y = 0$

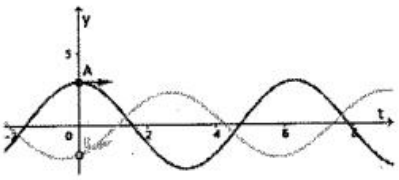
2/2

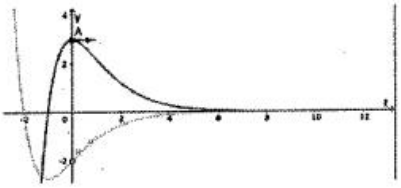
☒ $y'' - \frac{1}{2}y' + y = 0$ ☐ $y'' - \frac{3}{2}y' - y = 0$ ☐ $y'' + 2y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



☐ 

☐ 

☐ 

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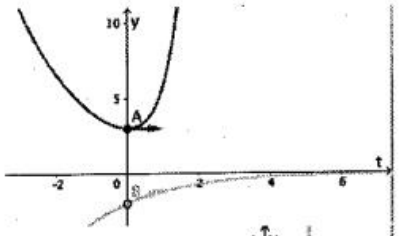
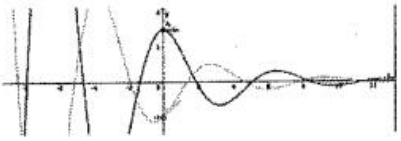
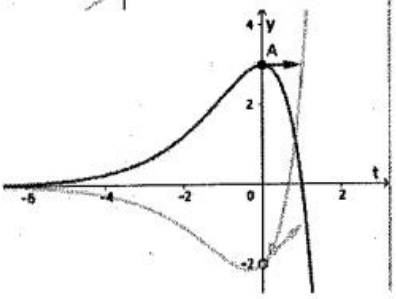
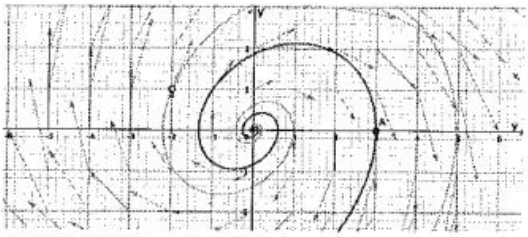
☒ 

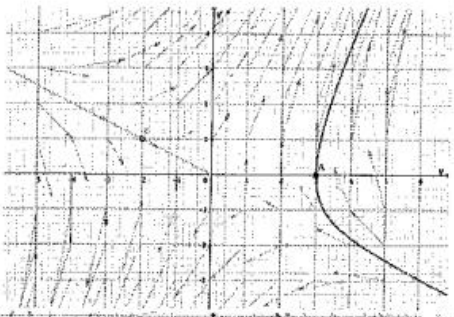
☐ 

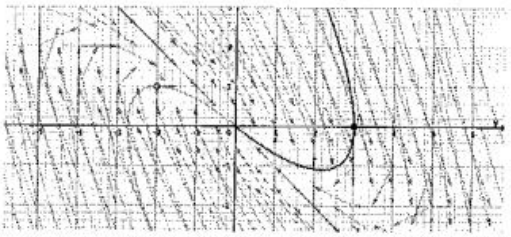
☐ 

Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' - \frac{1}{2}y' + y = 0$.

0/2

☒ 

☐ 

☒ 

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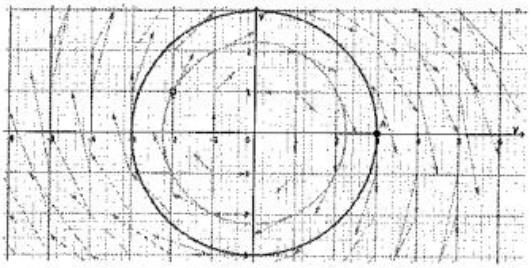
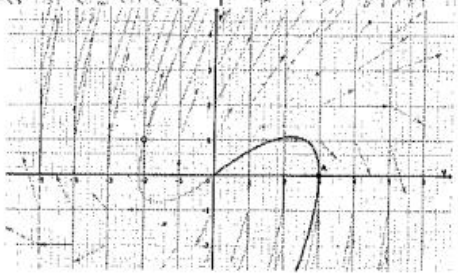
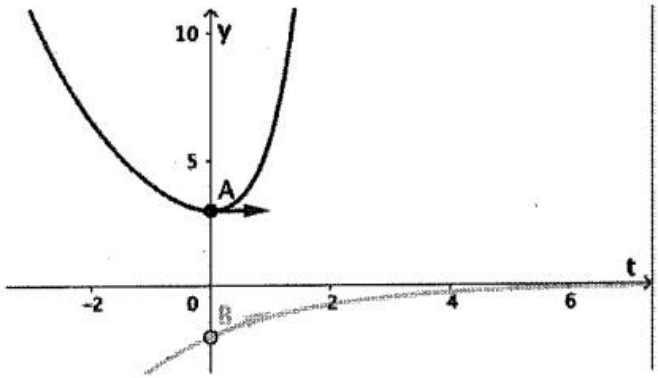
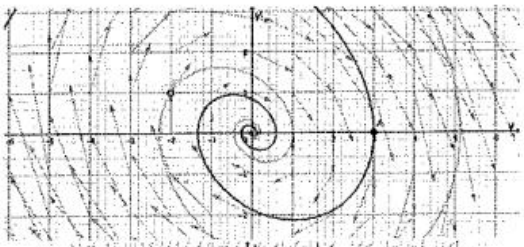
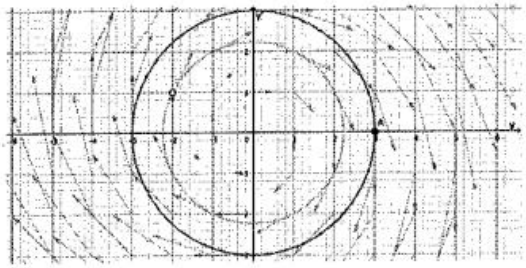
☐ 

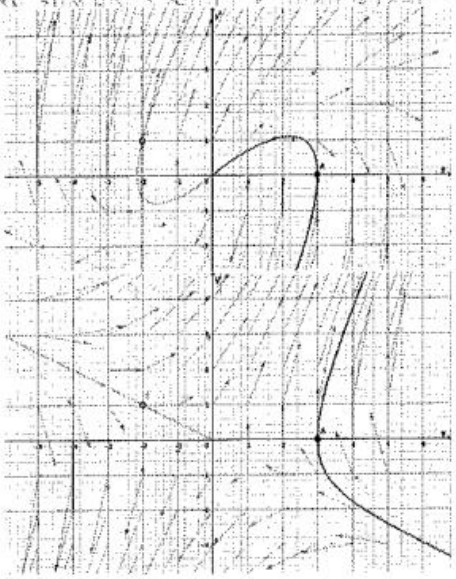
☐ 

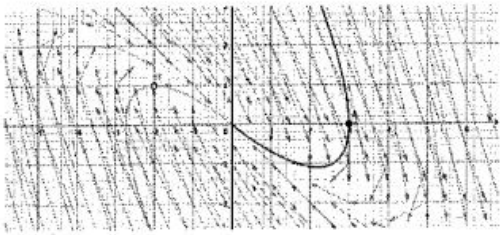
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☐ 

☐ 

☐ 

☐ 

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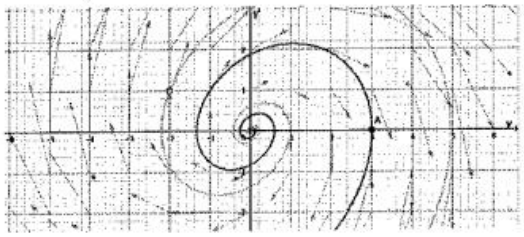
☐ 

2/2

FLAGEY MATHIAS
Note: 12/20 (score total : 6/10)

+120/1/13+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
FLAGEY Mathias

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Fdm2 – Printemps 2019

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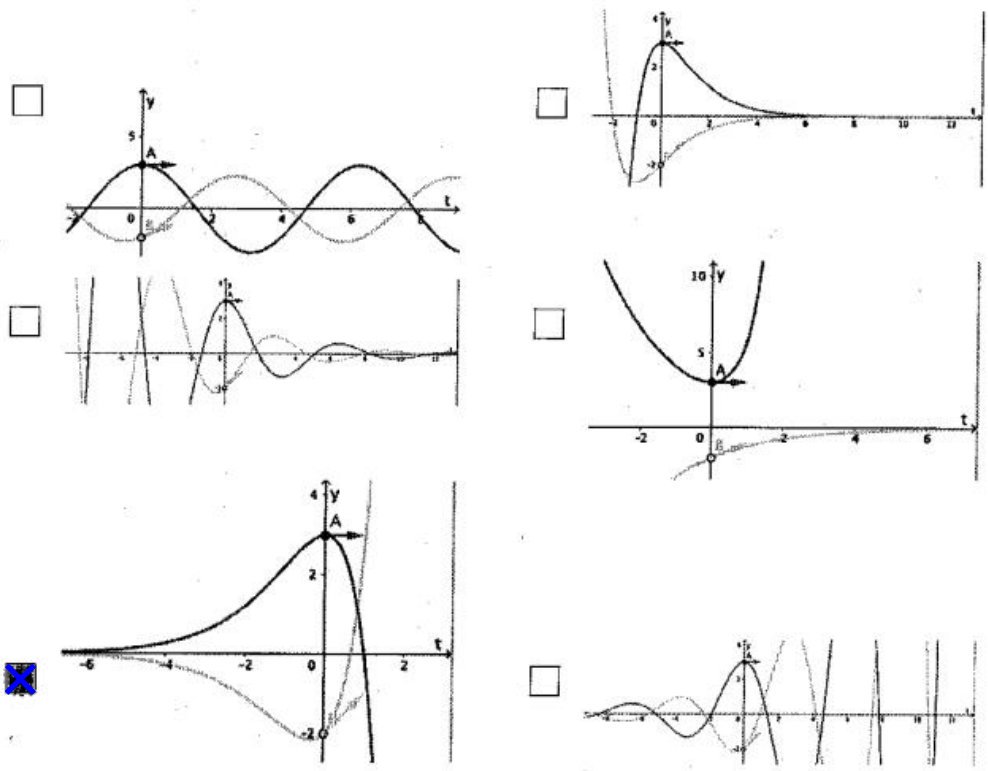
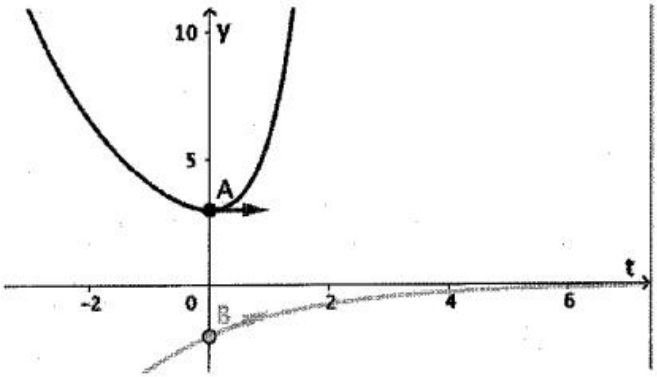
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' - 2y' + y = 0$.



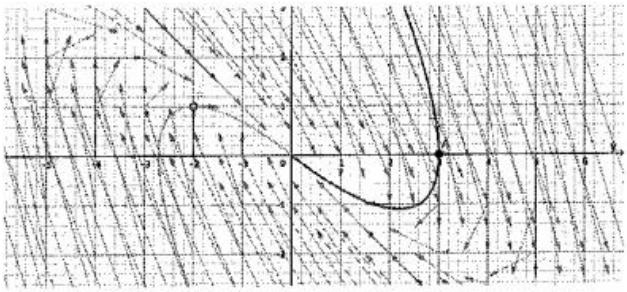
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



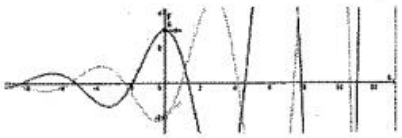
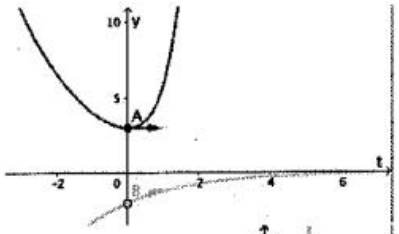
0/2

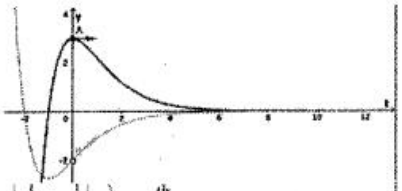
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' + 2y' + y = 0$
- ☒ $y'' - 2y' + y = 0$
- ☒ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☐ $y'' + y = 0$

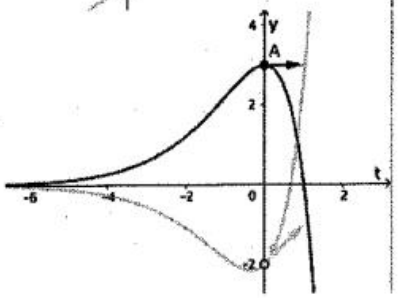
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

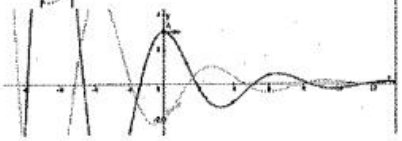
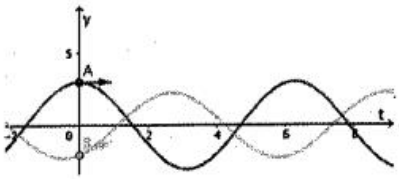


0/2

- ☐ 
- ☐ 

- ☒ 

- ☒ 

- ☐ 
- ☐ 

Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' - 2y' + y = 0$.

2/2

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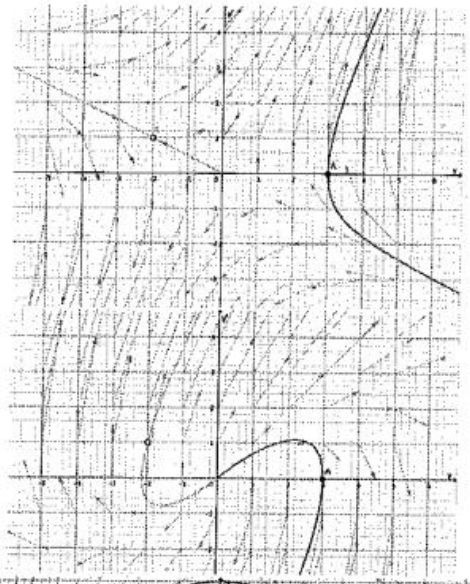

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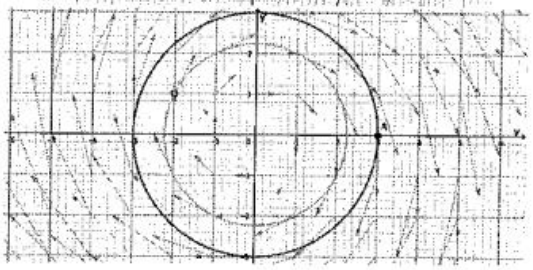

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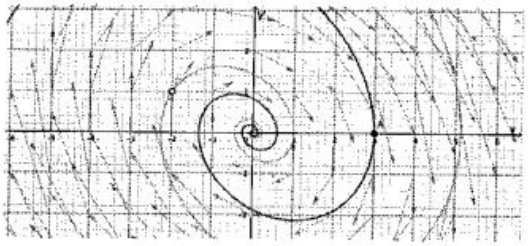

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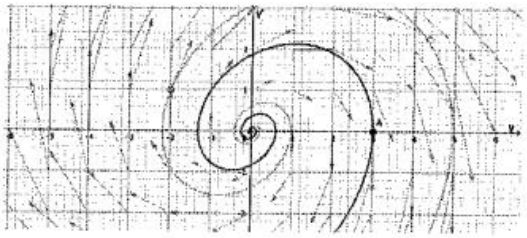

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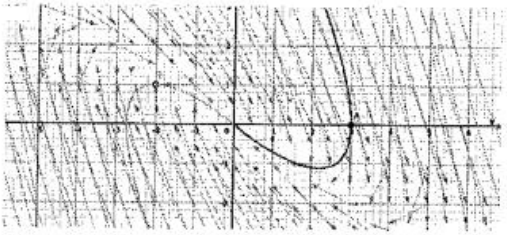
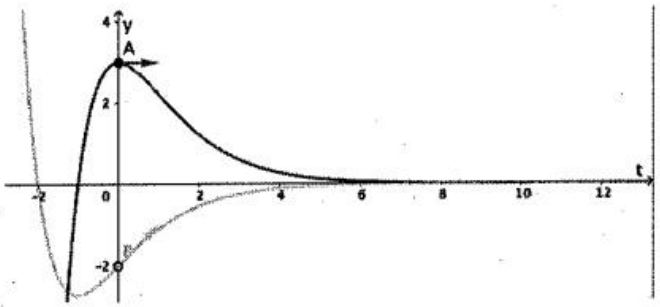
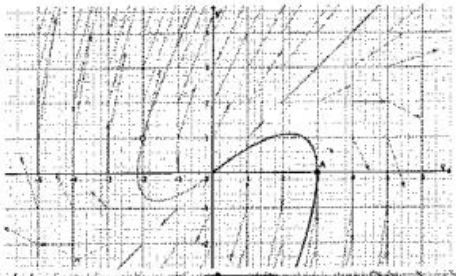
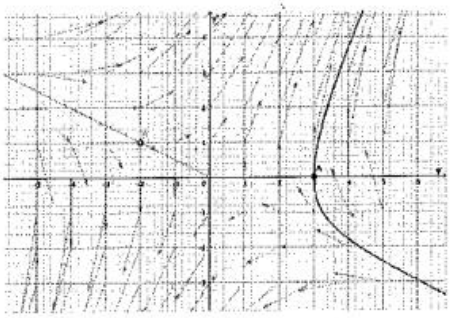


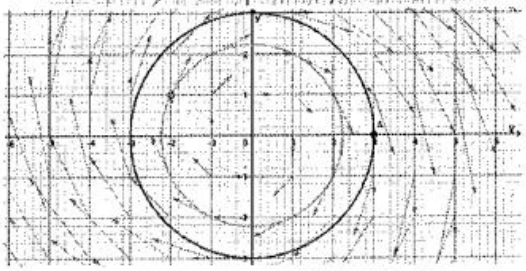
+120/4/10+

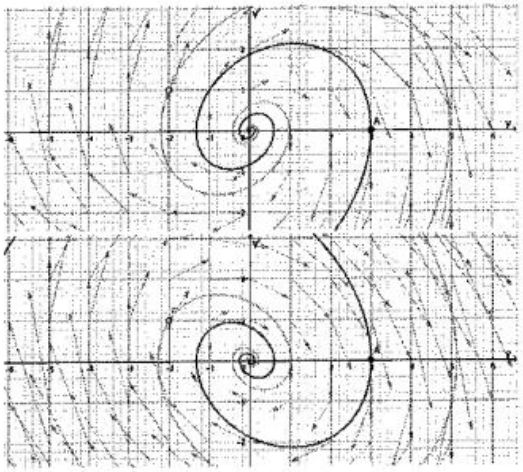
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

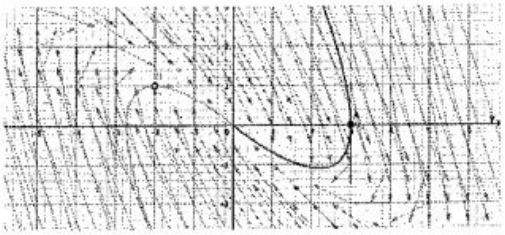


☐ 

☐ 

☐ 

☐ 

☒ 

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2/2

GUILLET THEODORE
Note: 8/20 (score total : 4/10)

+122/1/5+

Veillez à bien noircir les cases.

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Guillet Théodore

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Fdm2 – Printemps 2019

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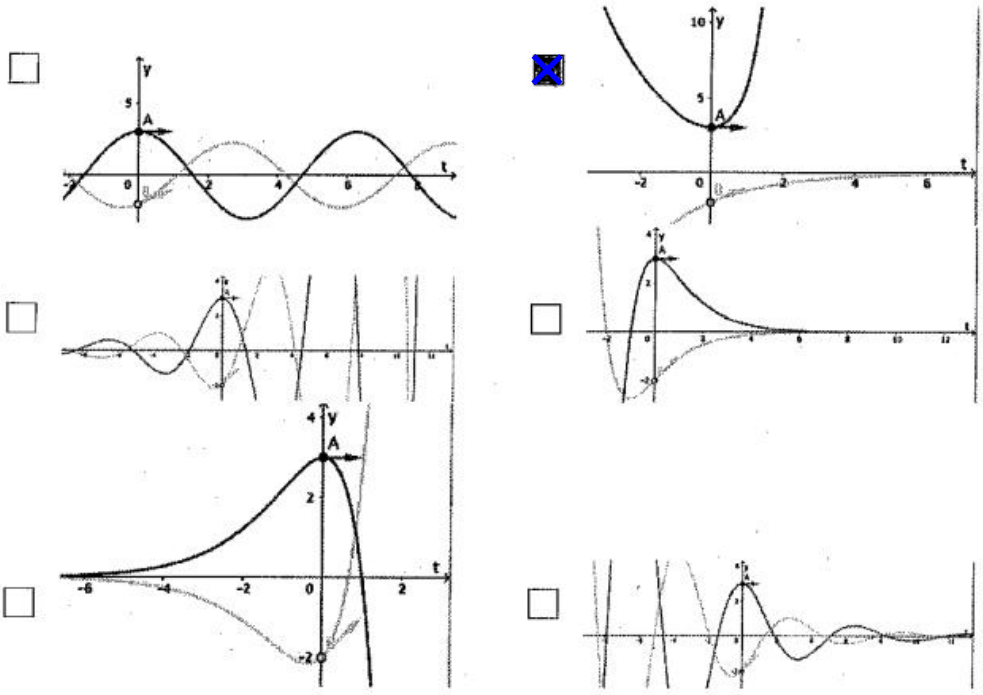
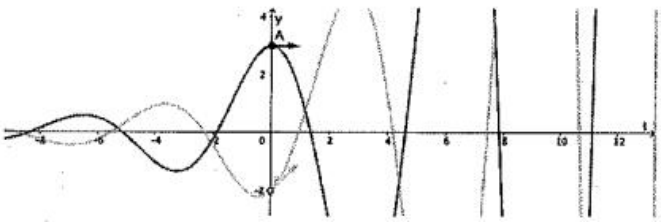
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

2/2



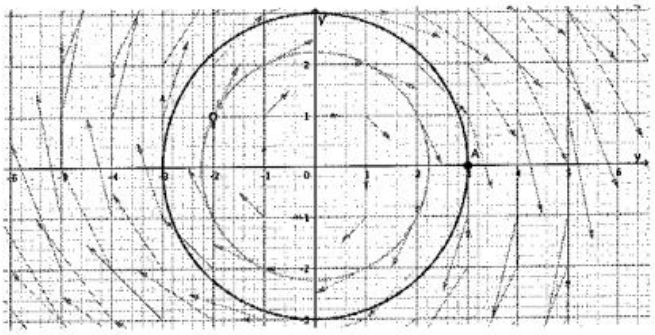
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

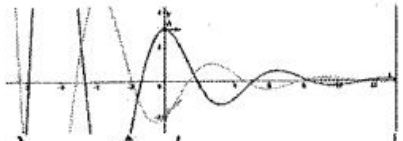


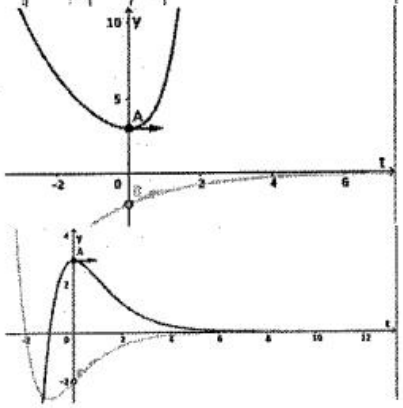
0/2

$y'' + y = 0$ ☐ $y'' + 2y' + y = 0$ ● $y'' - 2y' + y = 0$ ☐ $y'' - 2y' + y = 0$
☐ $y'' - \frac{3}{2}y' - y = 0$ ☒ $y'' - \frac{1}{2}y' + y = 0$ ☐ $y'' + \frac{1}{2}y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



☐ 

☐ 

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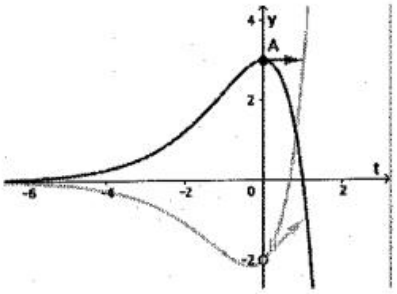
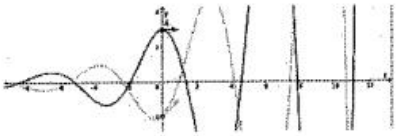
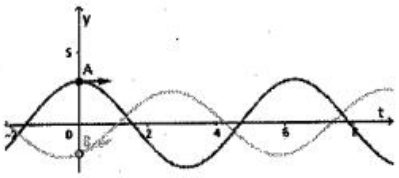
☐ 

☒ 

☒ 

0/2

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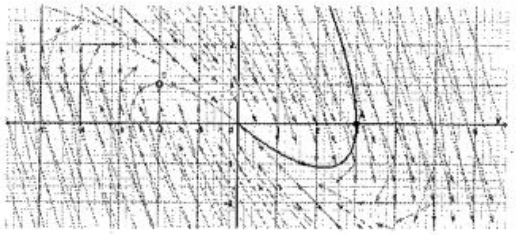
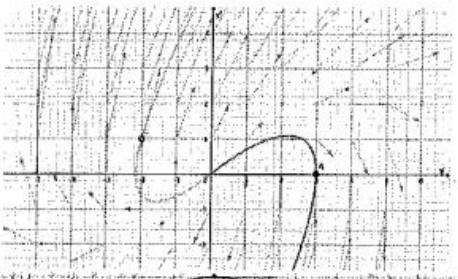
☐ 

☐ 

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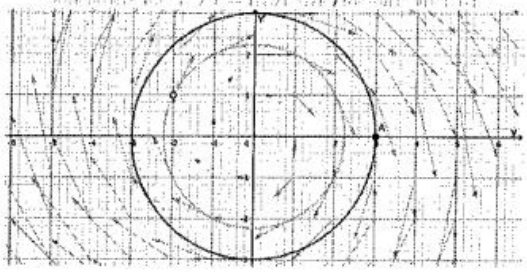
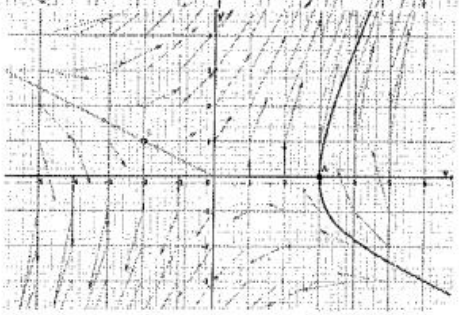
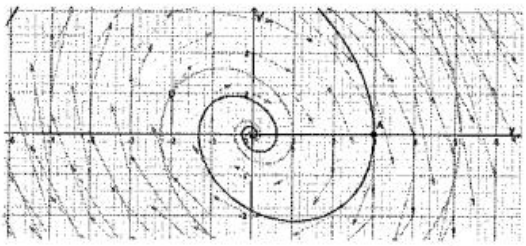
2/2

☐ 

☐ 

☐ 

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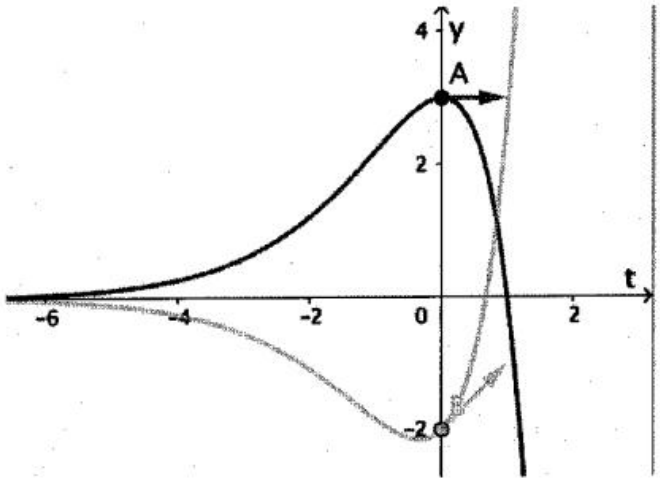
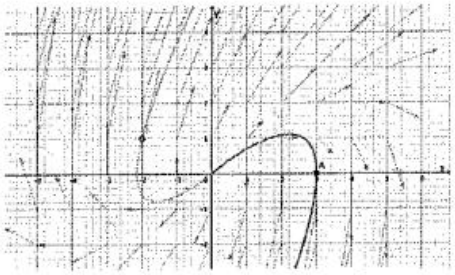
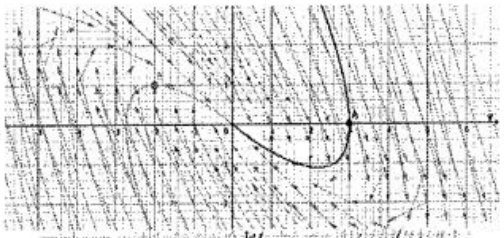
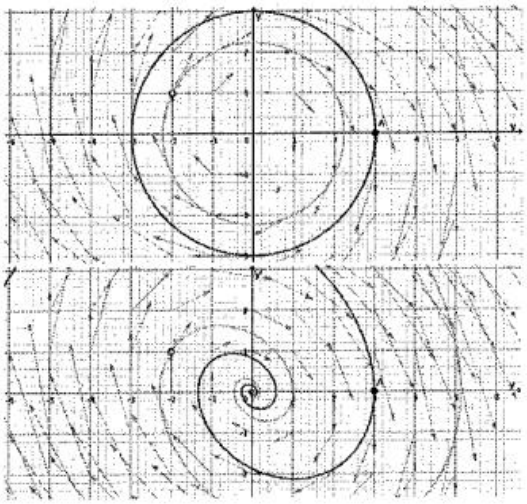
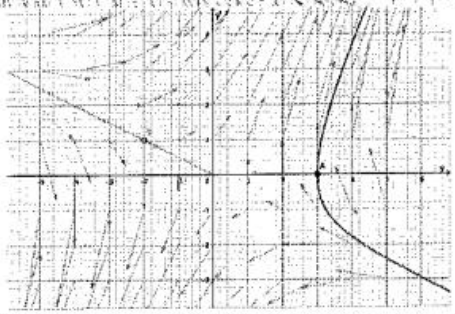


☒ 

☒ 

☐ 

☐ 

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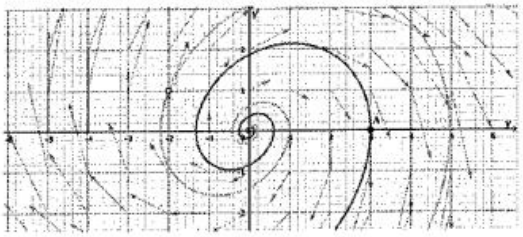
☐ 

0/2

HOUMMADY ENZO
Note: 8/20 (score total : 4/10)

+112/1/14+

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Nom et prénom :
HOUMMADY Enzo

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Fdm2 – Printemps 2019

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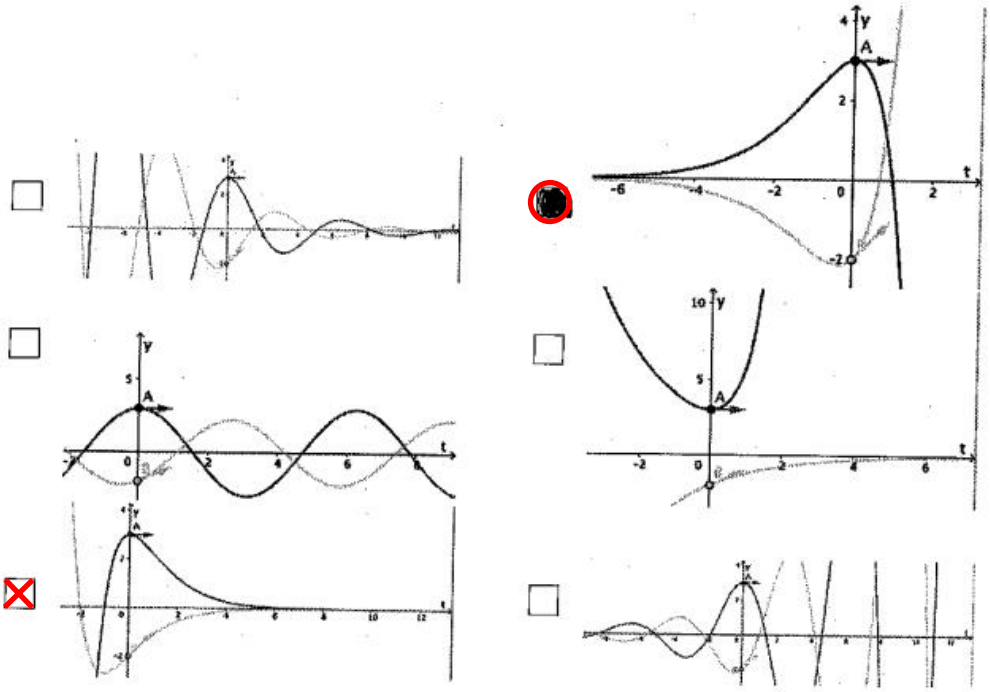
0/2



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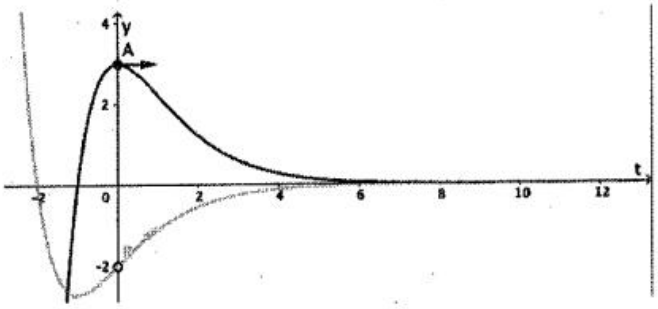
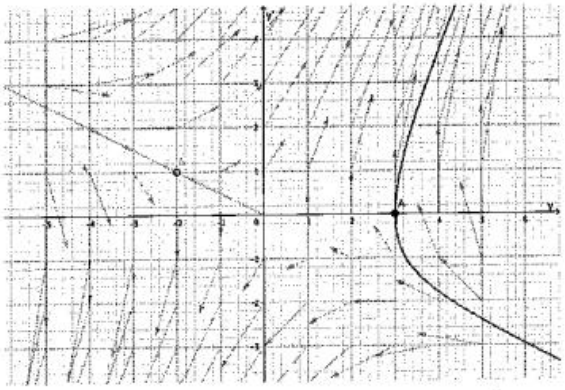


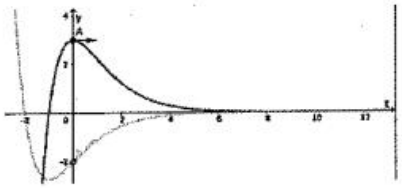
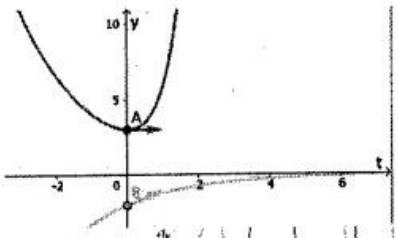
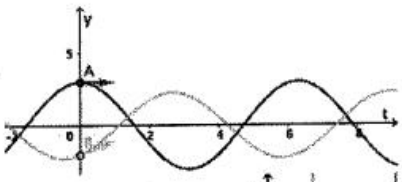
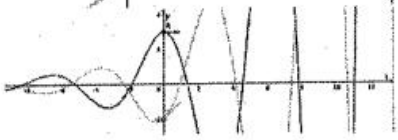
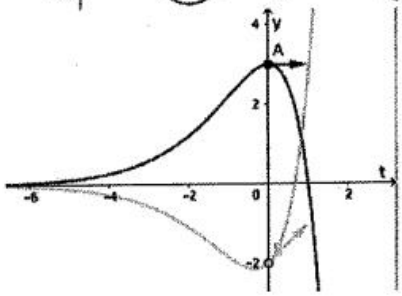
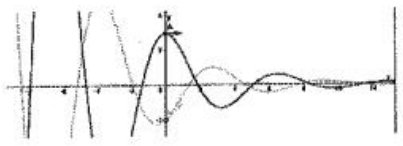
0/2

- ☐ $y'' - \frac{3}{2}y' - y = 0$
- ☒ $y'' + 2y' + y = 0$
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☒ $y'' - 2y' + y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

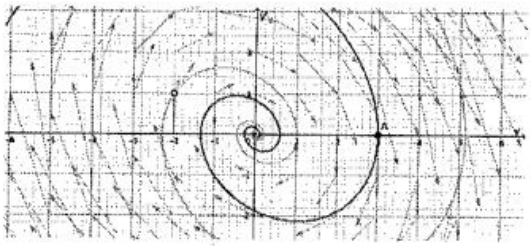


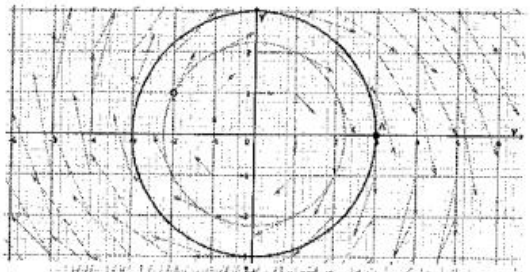
2/2

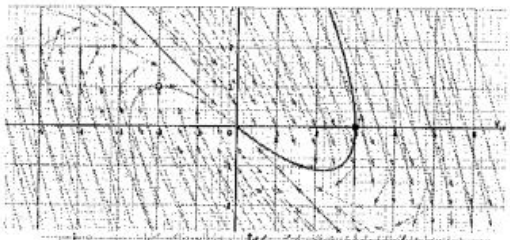
- ☐ 
- ☒ 
- ☐ 
- ☐ 
- ☐ 
- ☐ 

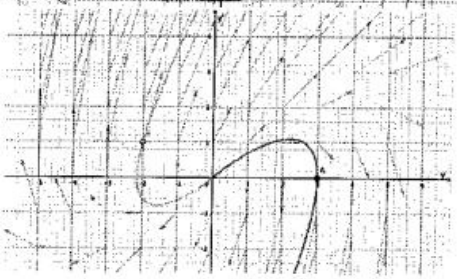
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + 2y' + y = 0$.

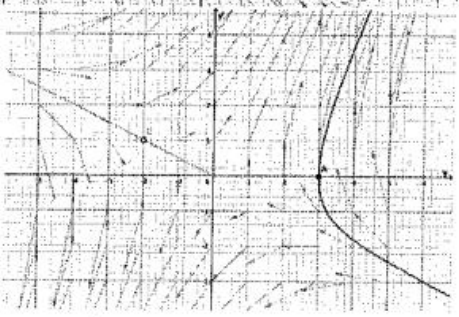
0/2

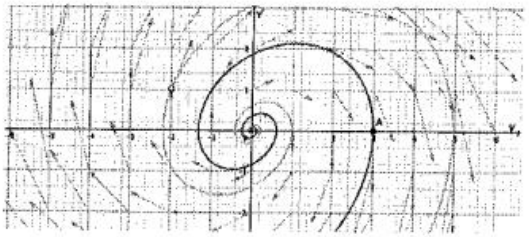
☐ 

☐ 

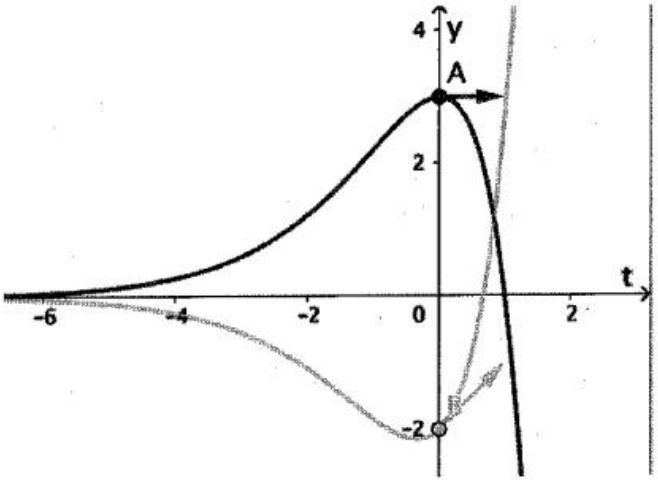
☒ 

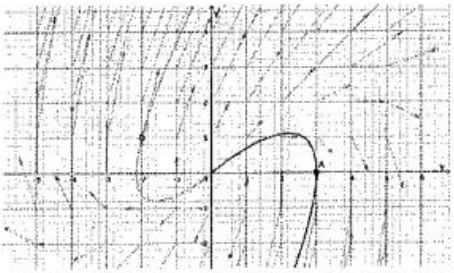
● 

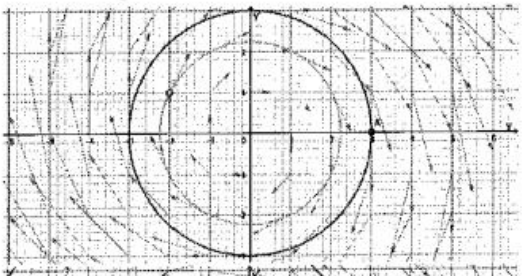
☐ 

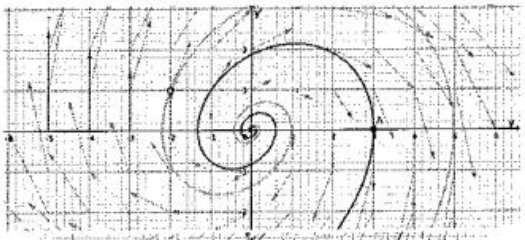
☐ 

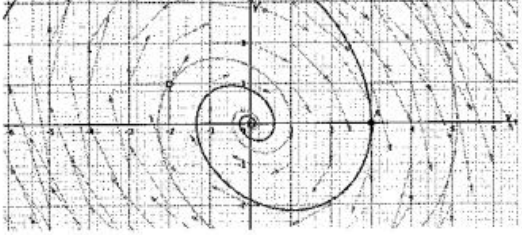
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

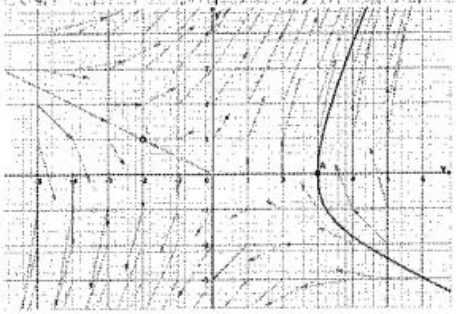


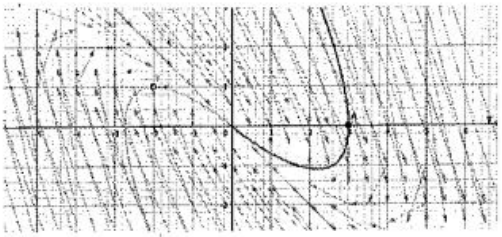
☒ 

☐ 

☐ 

☐ 

☐ 

☐ 

2/2

JOLY ANDREA
Note: 20/20 (score total : 10/10)

+117/1/25+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Joly Andrée

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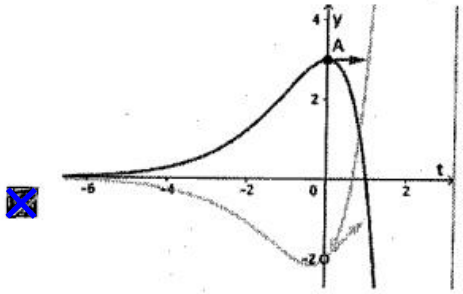
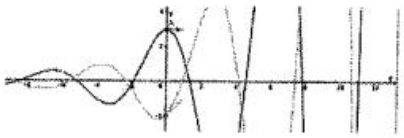
toute erreur invalide la copie !**

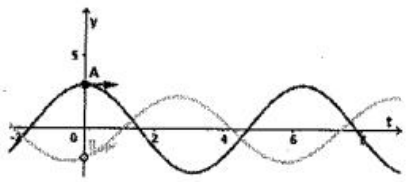
Fdm2 – Printemps 2019

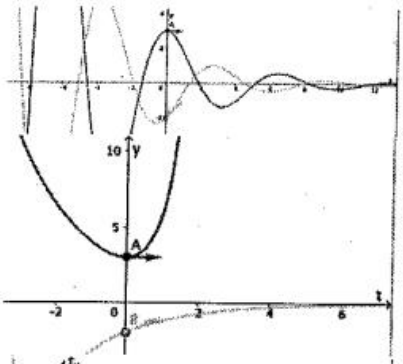
Règlement – L'épreuve dure 40 minutes. Les calculatrices sont interdites. Les téléphones portables doivent être éteints. Il n'est admis de consulter aucun document.
Les questions ont une seule bonne réponse, qui vaut 4 points. Cochez une seule réponse par question.

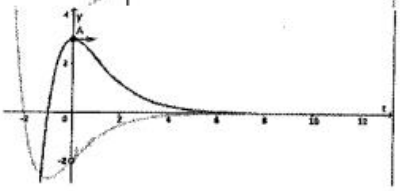
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' - 2y' + y = 0$.





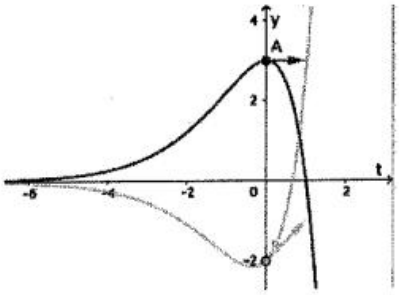






2/2

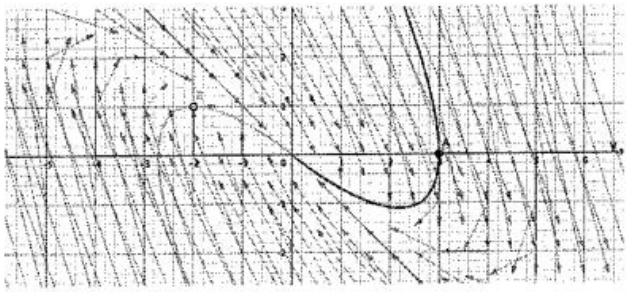
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



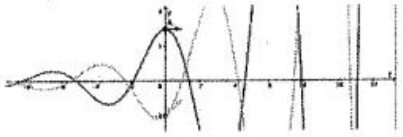
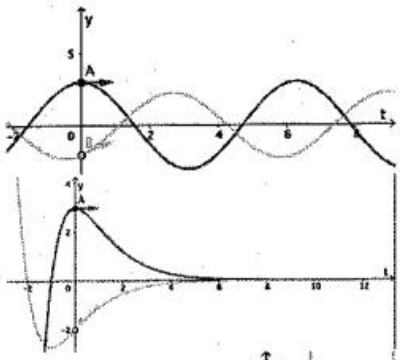
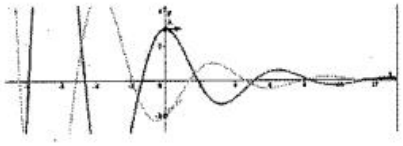
2/2

- ☐ $y'' + y = 0$
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☒ $y'' - 2y' + y = 0$
- ☐ $y'' + 2y' + y = 0$
- ☐ $y'' - \frac{3}{2}y' - y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



2/2

- ☐ 
- ☐ 
- ☐ 
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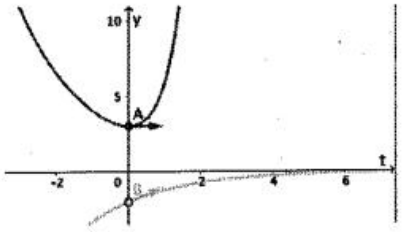
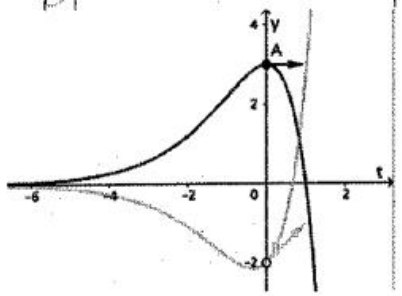
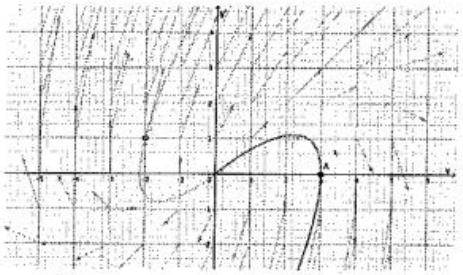
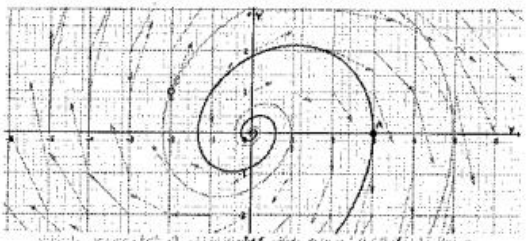
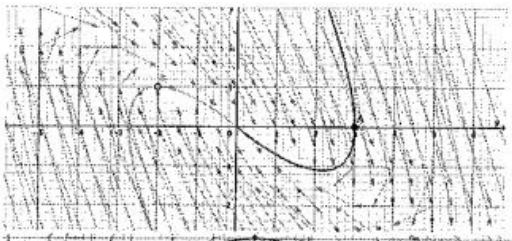
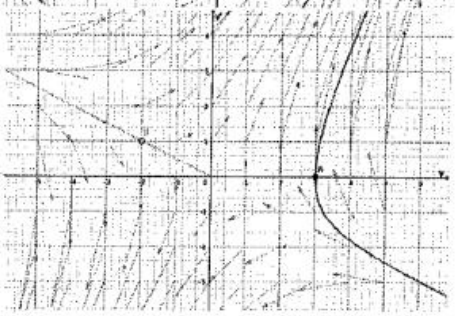
- ☐ 
- ☐ 

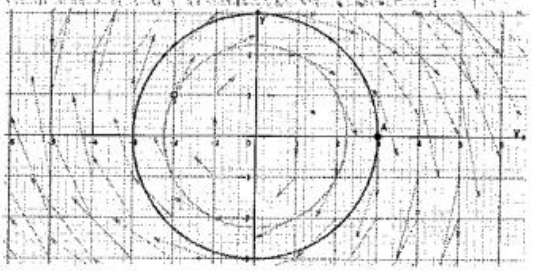
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + \frac{1}{2}y' + y = 0$.

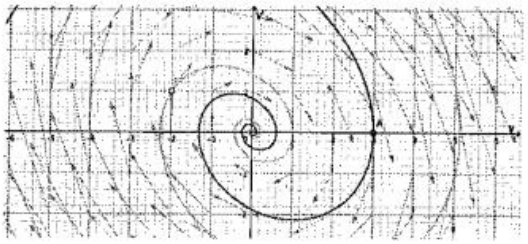
☐ 

☐ 

☐ 

☐ 

☐ 

☒ 

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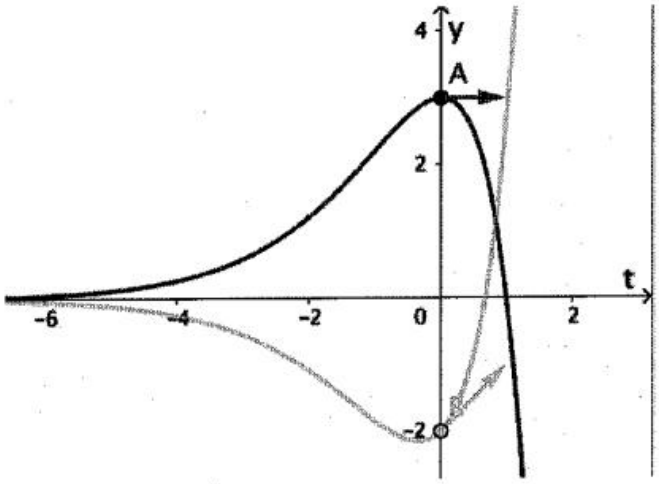
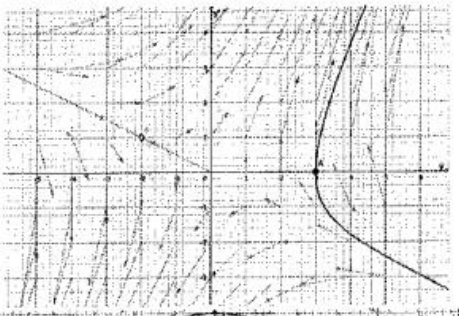
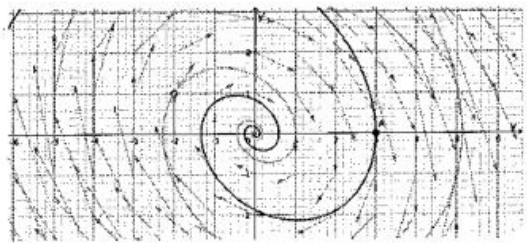
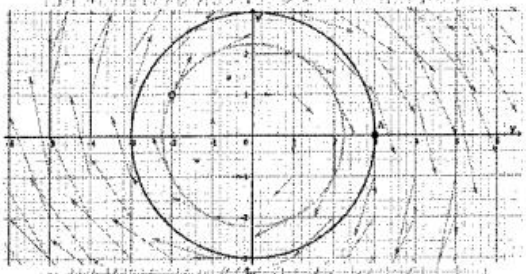
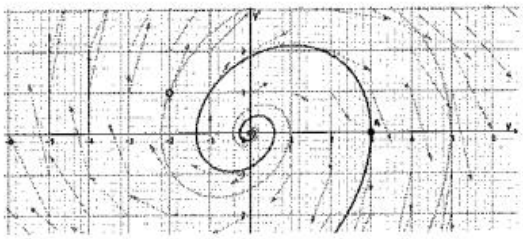
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

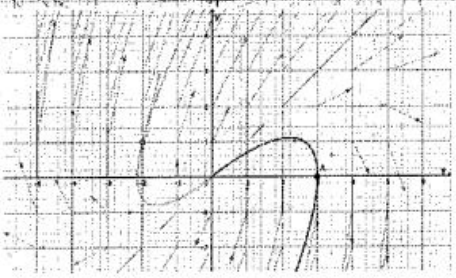


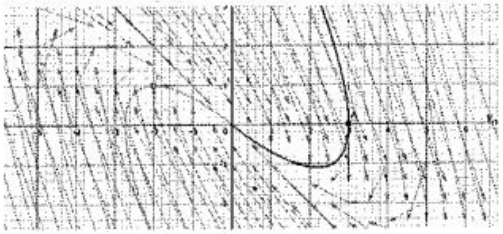
☐ 

☐ 

☐ 

☐ 

☒ 

☐ 

2/2

MADET ALICIA
Note: 12/20 (score total : 6/10)

+118/1/21+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
MADET Alicia

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Fdm2 – Printemps 2019

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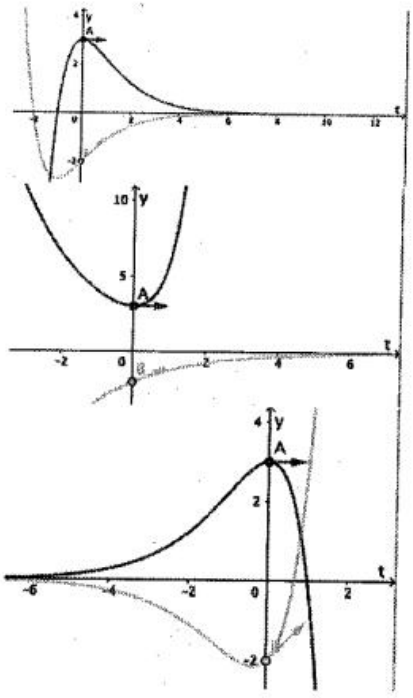
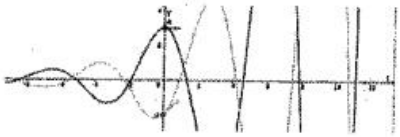
☐ 

☒ 

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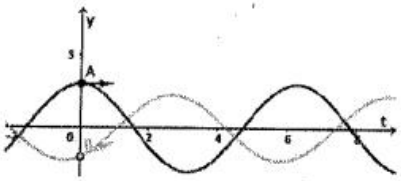
☐ 

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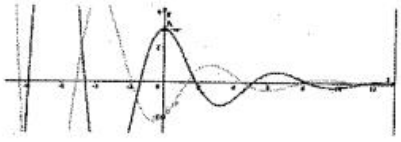
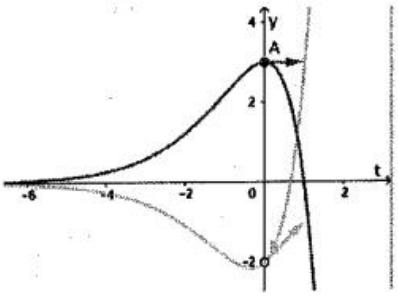


2/2

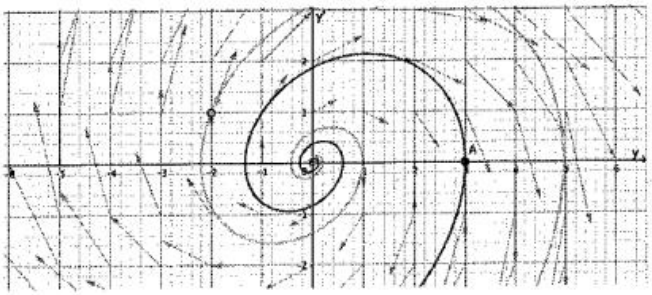
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



2/2

- ☐ $y'' + 2y' + y = 0$
- ☒ $y'' - 2y' + y = 0$
- ☐ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



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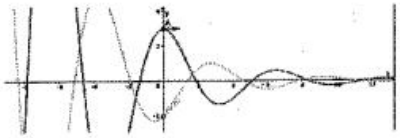

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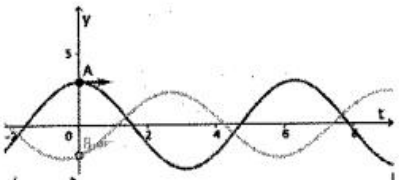

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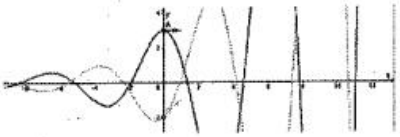

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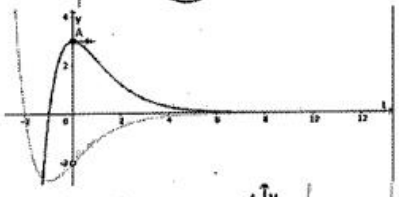

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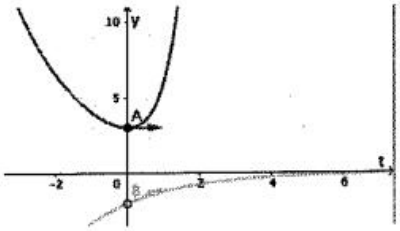

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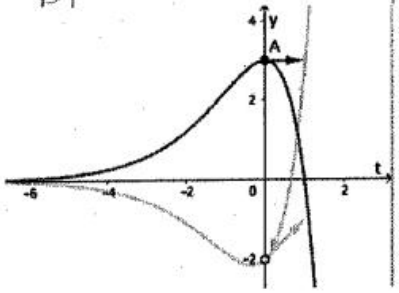
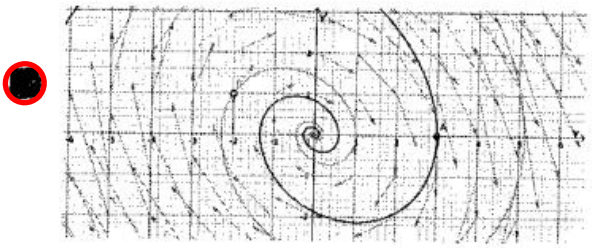
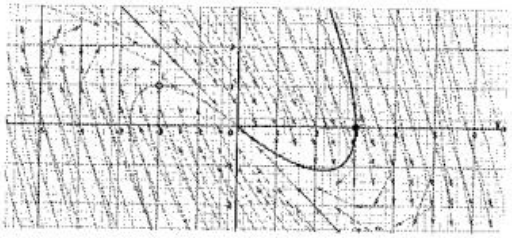
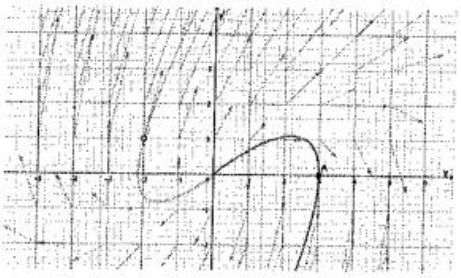


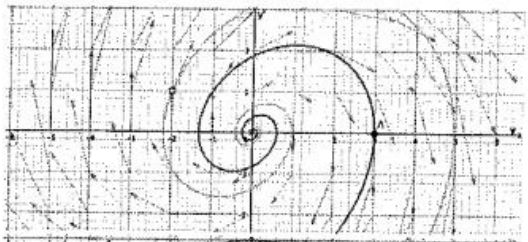
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

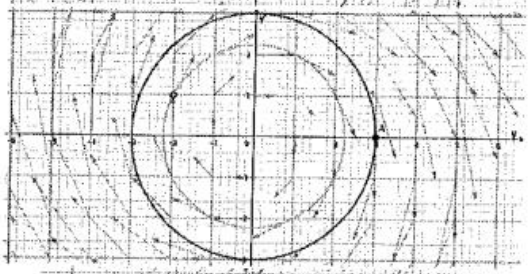
0/2

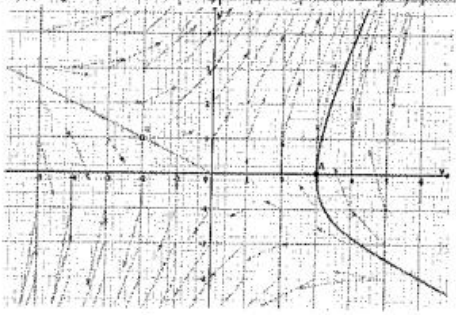




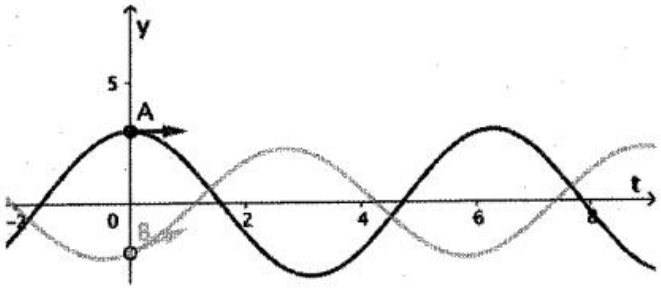


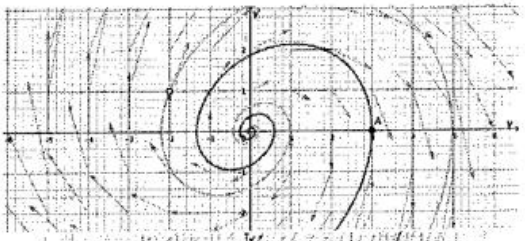


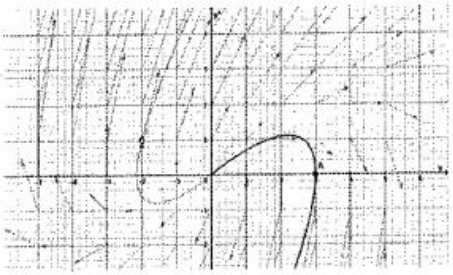


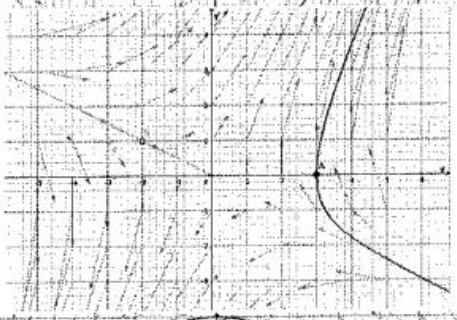


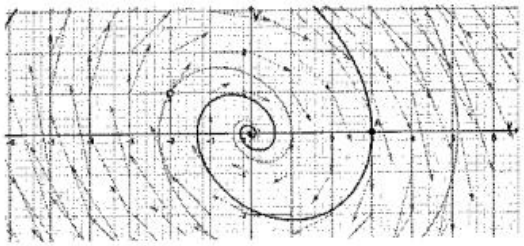
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

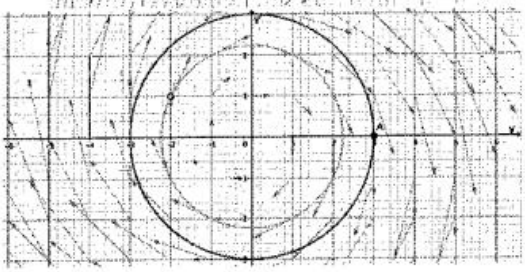


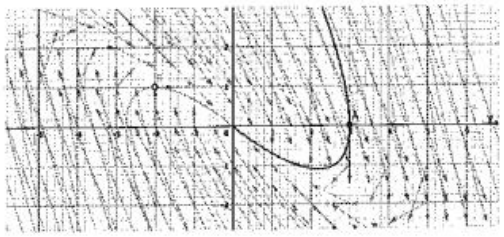
☐ 

☐ 

☐ 

● 

☒ 



0/2

MAILHEBIAU PHOEBUS
Note: 8/20 (score total : 4/10)

+109/1/26+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Mailhebiau Phoebus

Attention à ne pas vous tromper, toute erreur invalide la copie !

Fdm2 – Printemps 2019

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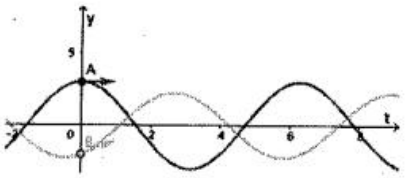
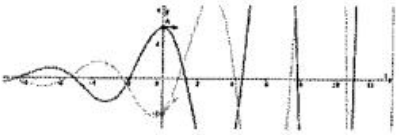
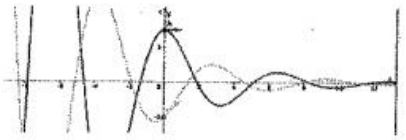
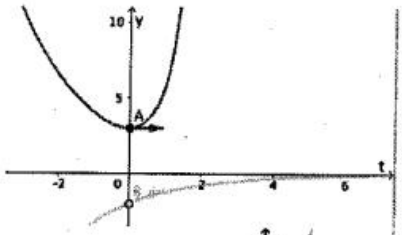
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' - \frac{1}{2}y' + y = 0$.

☐ 

☒ 

☐ 

☐ 

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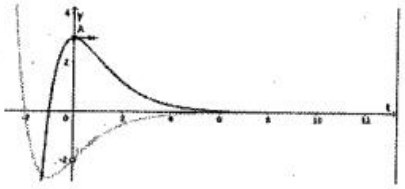
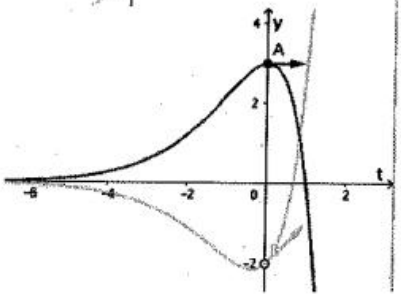
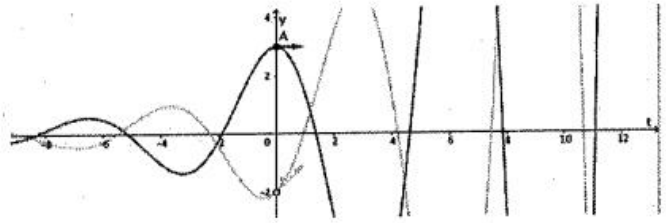
☐ 

☐ 

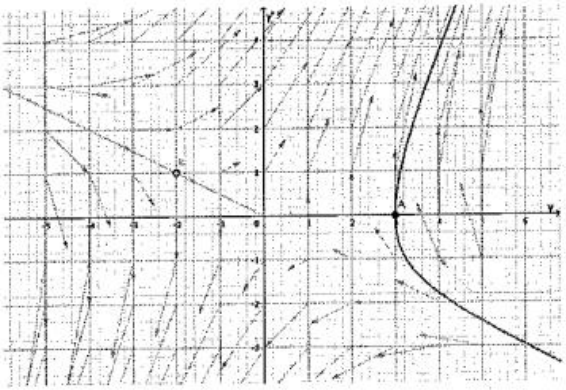
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



2/2

- [ ] $y'' + y = 0$
- [ ] $y'' + 2y' + y = 0$
- [x] $y'' - \frac{1}{2}y' + y = 0$
- [ ] $y'' - \frac{3}{2}y' - y = 0$
- [ ] $y'' - 2y' + y = 0$
- [ ] $y'' + \frac{1}{2}y' + y = 0$
- [ ] $y'' - 2y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



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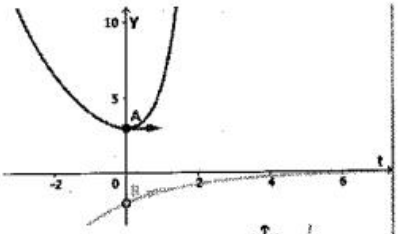
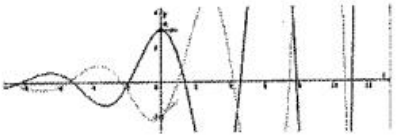
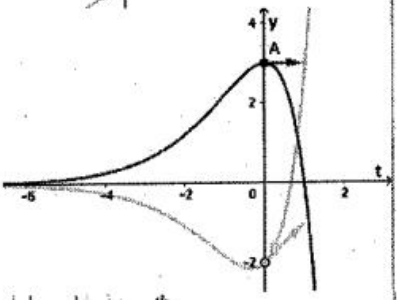
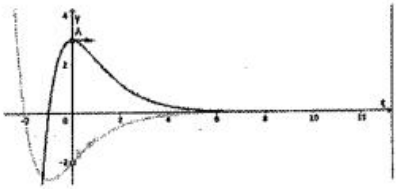
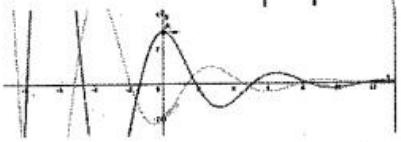
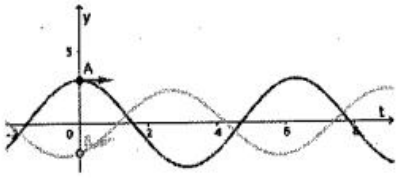
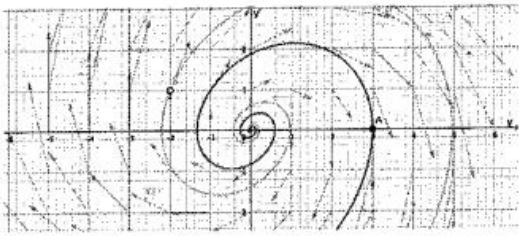
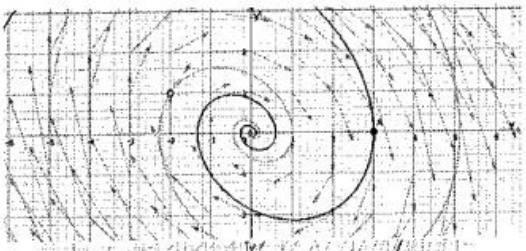
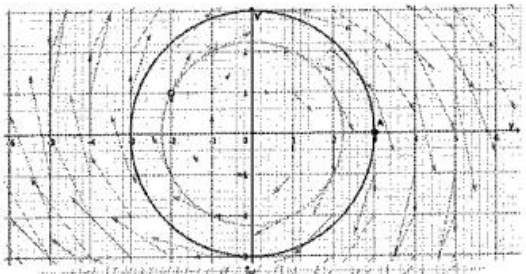
- [x] 
- [ ] 
- [ ] 
- [x] 
- [ ] 
- [ ] 

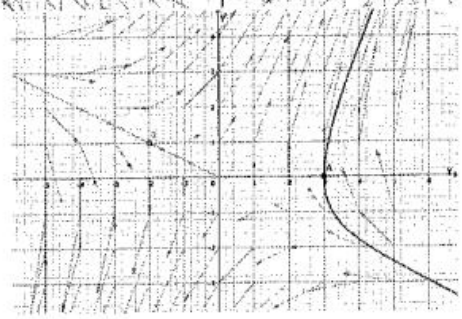
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

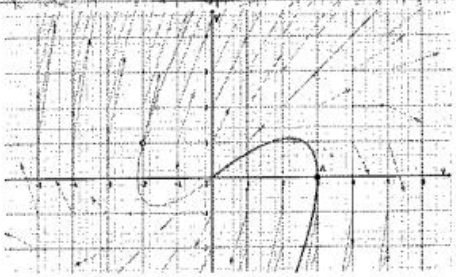
0/2

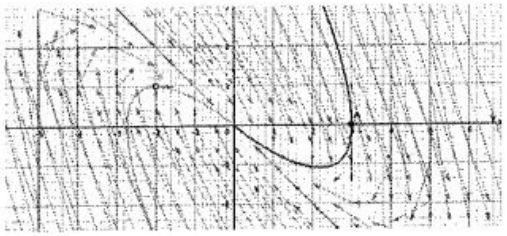
☐ 

☒ 

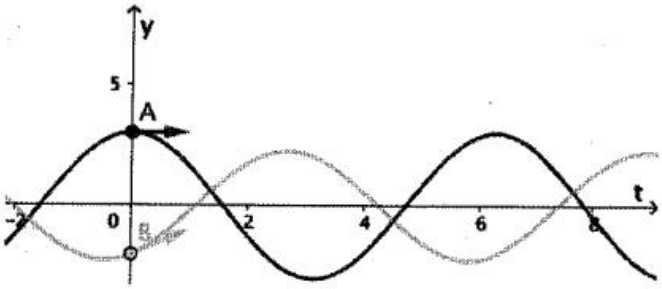
☐ 

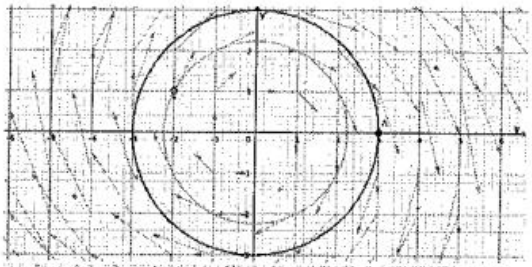
☒ 

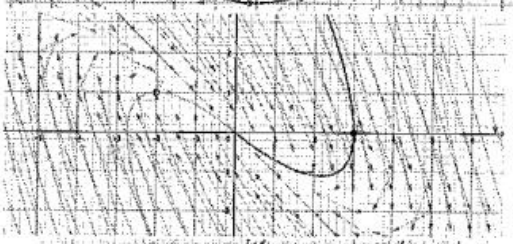
☐ 

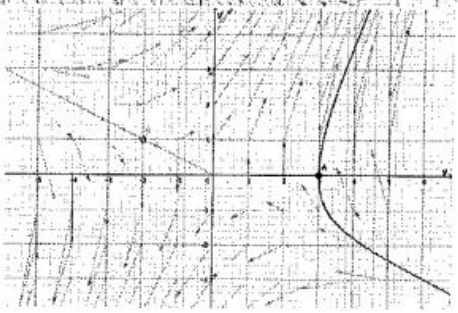
☐ 

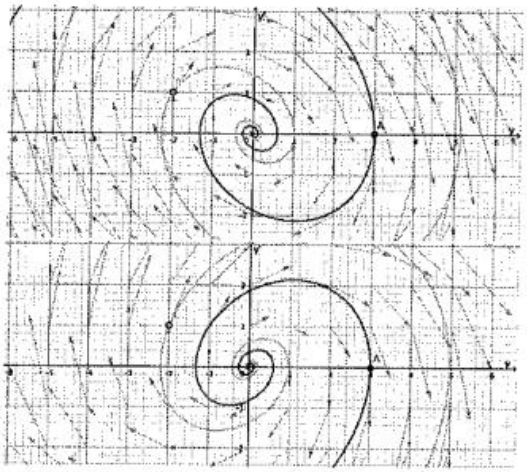
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

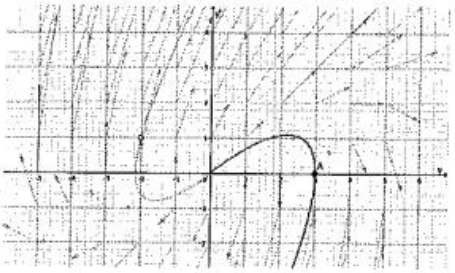


☒ 

☐ 

☐ 

☒ 

☐ 

0/2

MAREK JORIS
Note: 20/20 (score total : 10/10)

+121/1/9+

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Nom et prénom :
MAREK Joris

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Fdm2 – Printemps 2019

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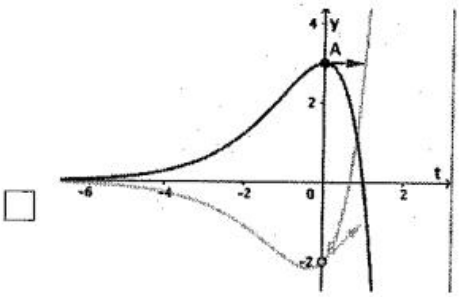

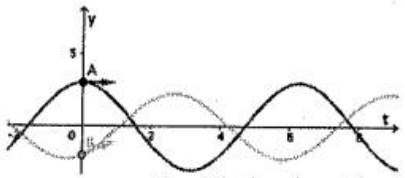

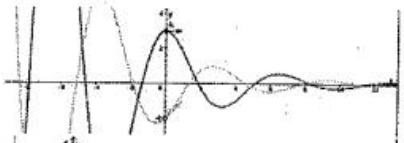

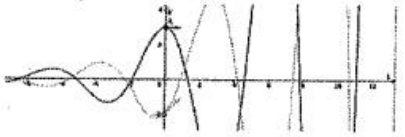

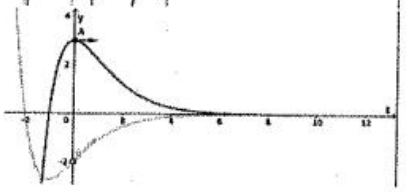

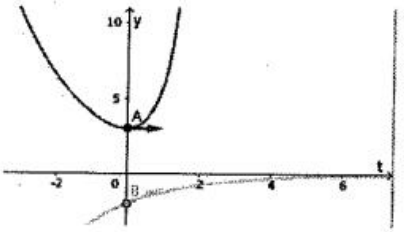

2/2

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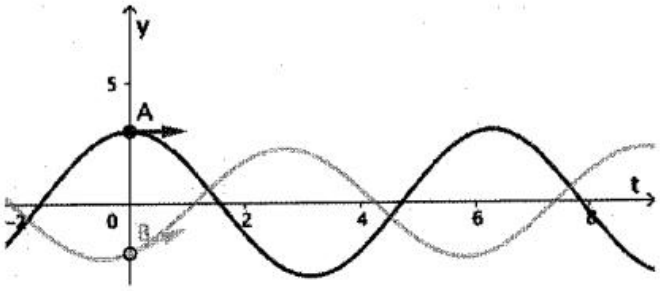

2/2

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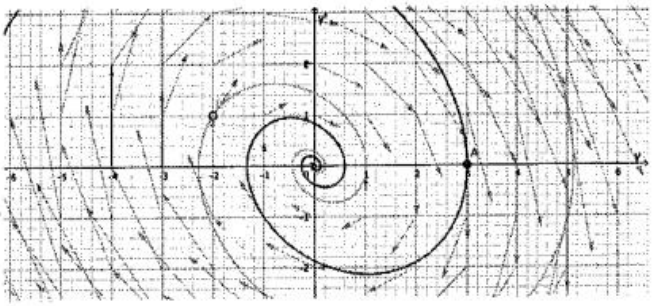
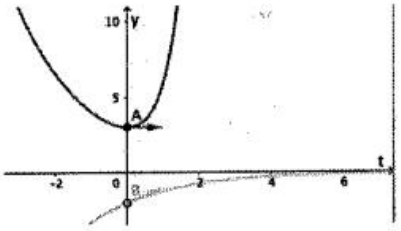
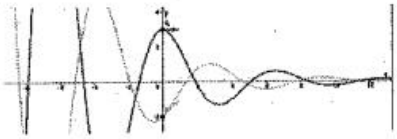


☐ 

☒ 

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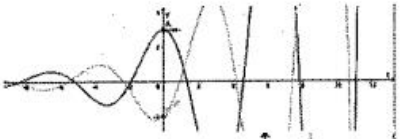
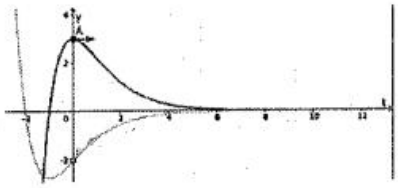
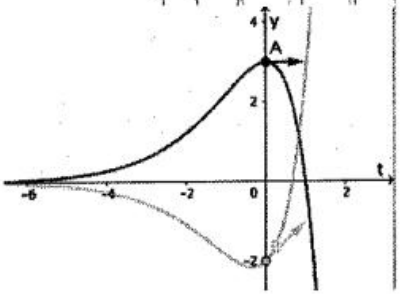
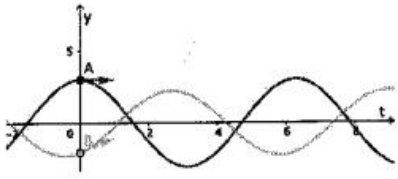
☐ 

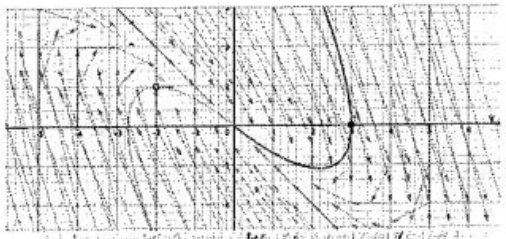
☐ 

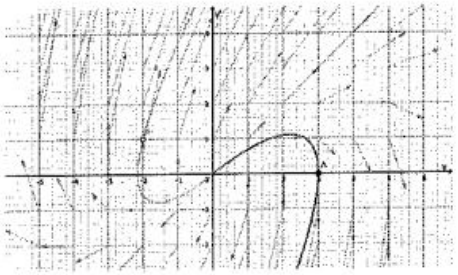
☐ 

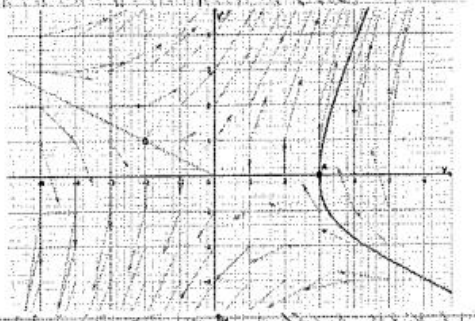
☐ 

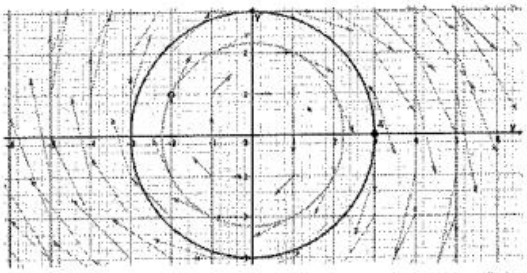
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + 2y' + y = 0$.

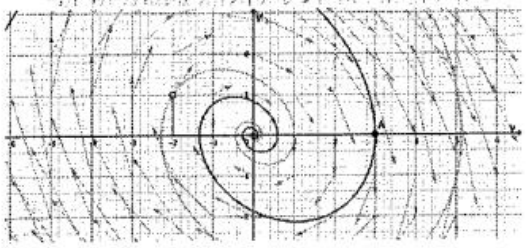
2/2

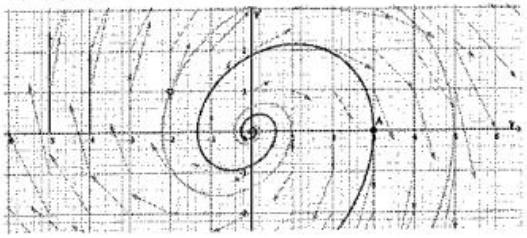
☒ 

☐ 

☐ 

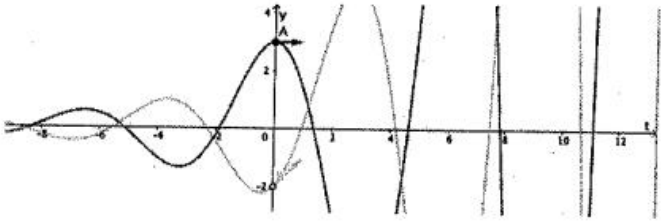
☐ 

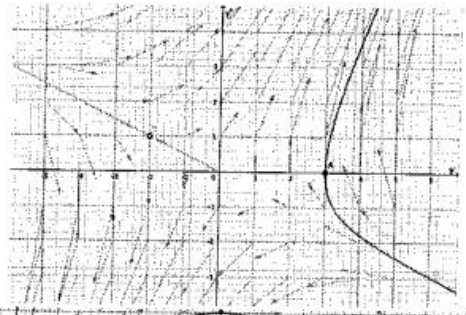
☐ 

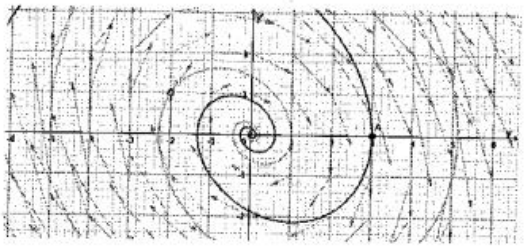
☐ 

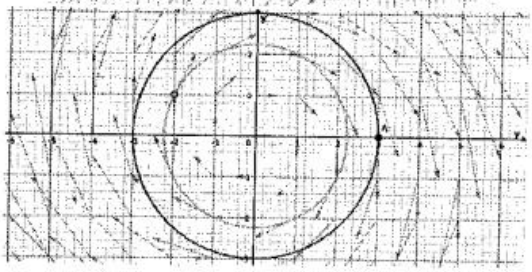
+121/4/6+

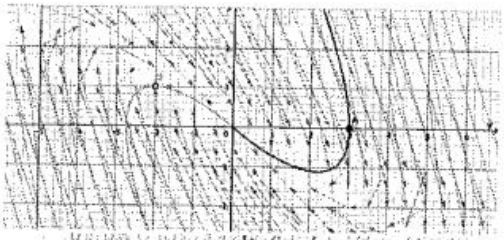
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

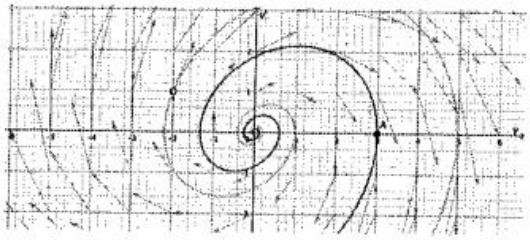


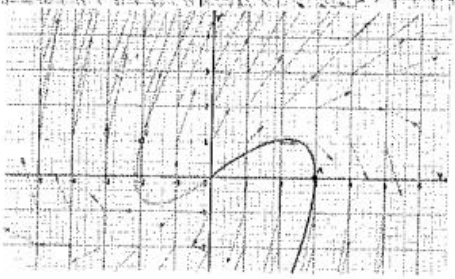
☐ 

☐ 

☐ 

☐ 

☒ 

☐ 

2/2

MECHRAOUI AHMED
Note: 4/20 (score total : 2/10)

+114/1/6+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

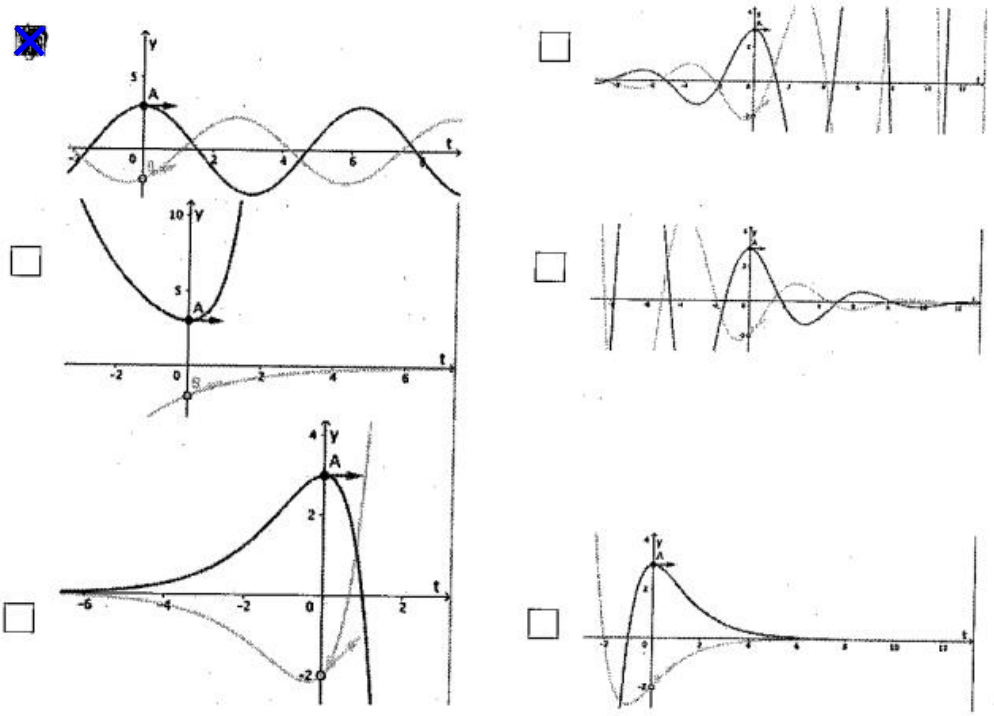
Nom et prénom :
MECHRAOUI Ahmed

Attention à ne pas vous tromper, toute erreur invalide la copie !

Fdm2 – Printemps 2019

Règlement – L'épreuve dure 40 minutes. Les calculatrices sont interdites. Les téléphones portables doivent être éteints. Il n'est admis de consulter aucun document.
Les questions ont une seule bonne réponse, qui vaut 4 points. Cochez une seule réponse par question.

Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' + y = 0$.



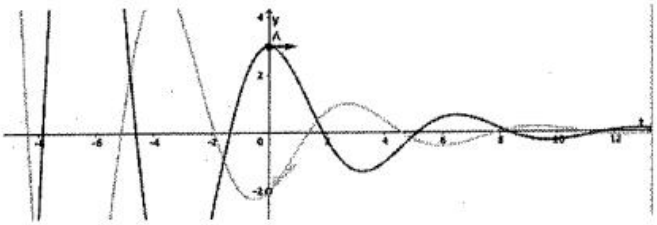
2/2

$x^2 + 1 = 0$ $\Delta < 4$

Δ $\frac{-1-1}{2} = -1$

$y = \lambda e^{-x} + \mu$ $\frac{-1+1}{2} = 0$

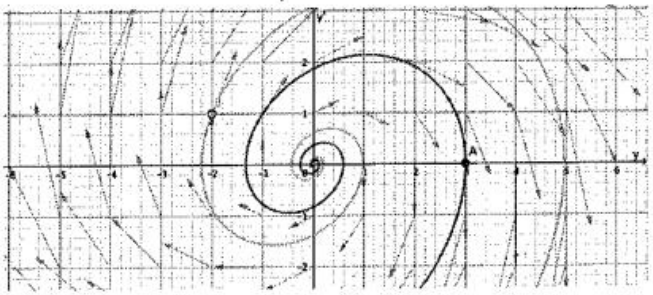
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



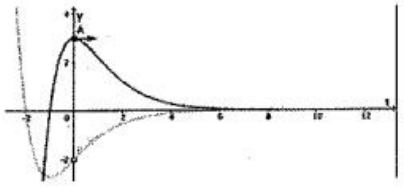
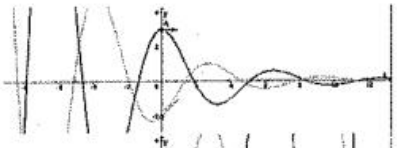
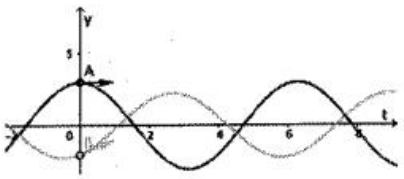
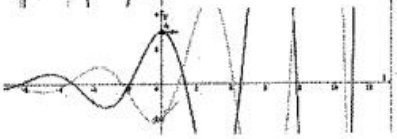
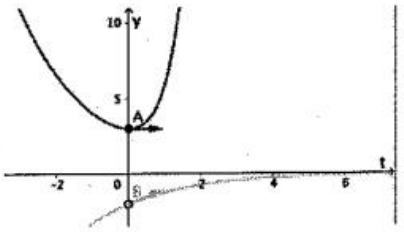
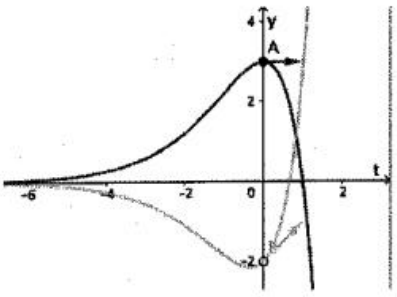
0/2

- ☐ $y'' + 2y' + y = 0$
- ☒ $y'' - \frac{3}{2}y' - y = 0$
- ☒ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' - 2y' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

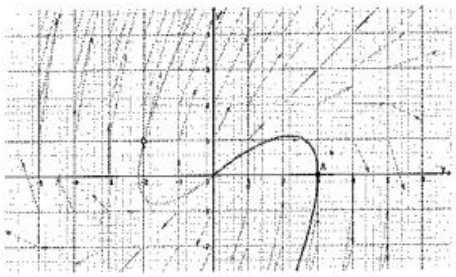


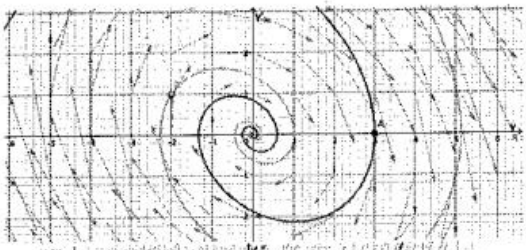
0/2

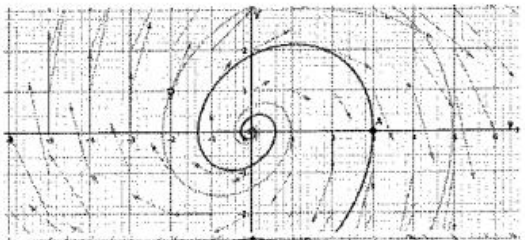
- ☐ 
- ☒ 
- ☐ 
- ☒ 
- ☐ 
- ☐ 

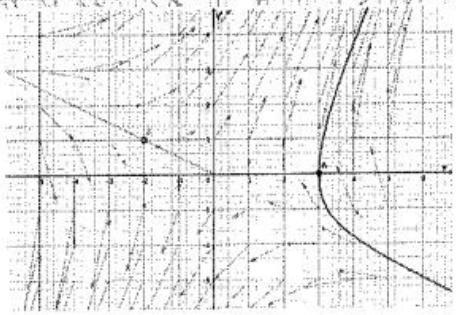
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

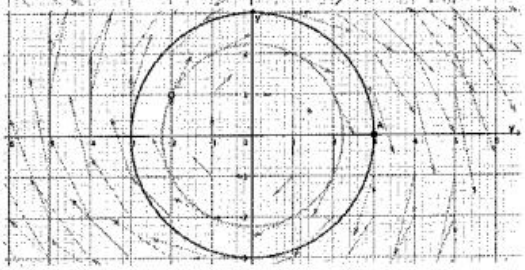
0/2

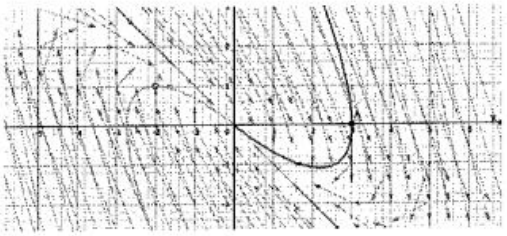
☐ 

☐ 

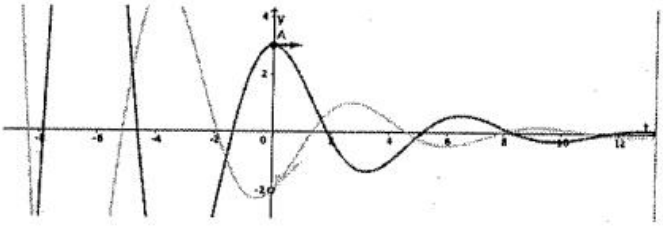
☐ 

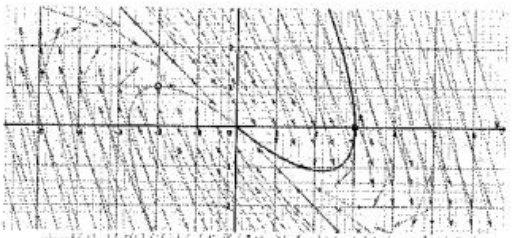
☒ 

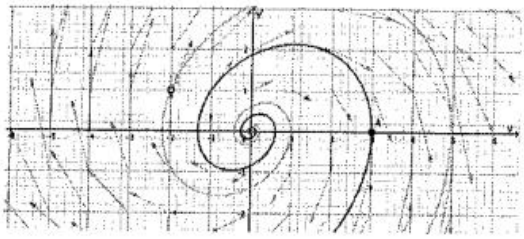
☐ 

☐ 

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☐ 

☒ 

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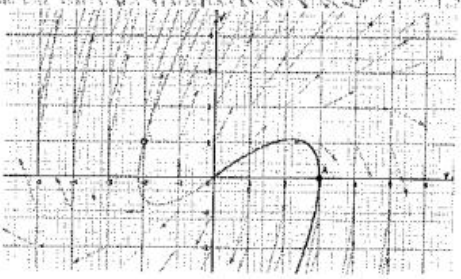
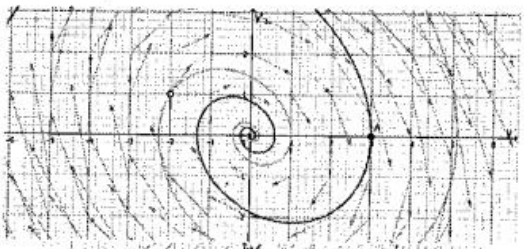
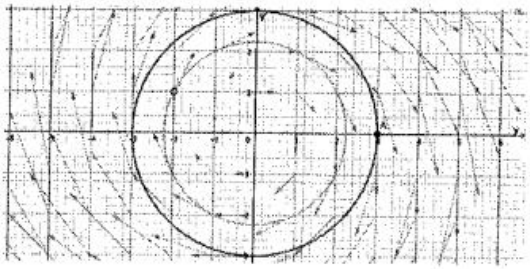
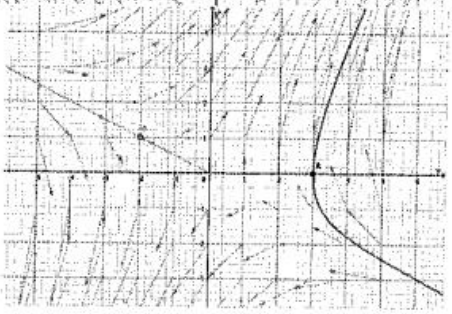


☒ 

☐ 

☐ 

MERCKX AURELIE
Note: 12/20 (score total : 6/10)

+123/1/1+

Veillez à bien noircir les cases.

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Nom et prénom :
MERCKX Aurelie

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Fdm2 – Printemps 2019

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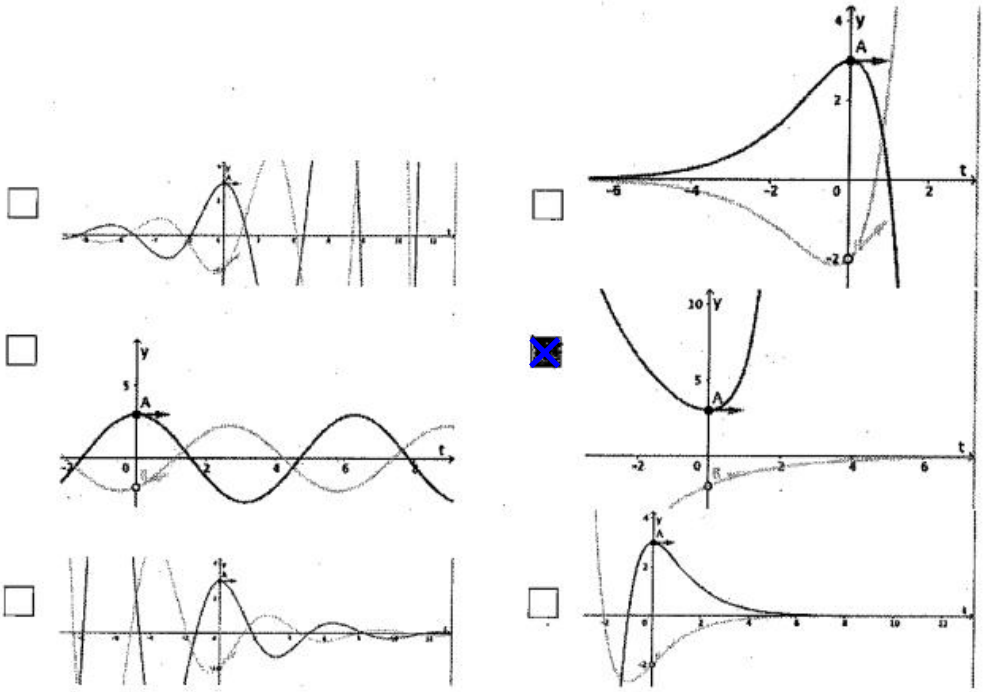
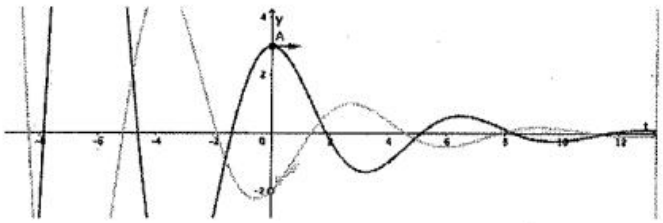
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

2/2



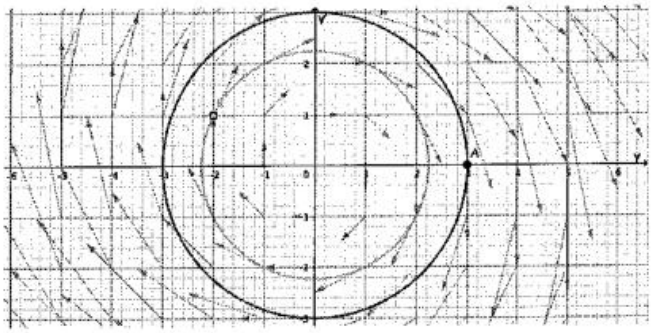
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

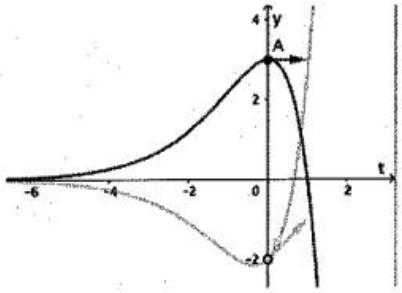


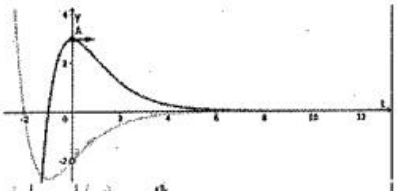
0/2

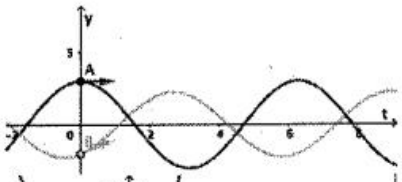
- ☐ $y'' + 2y' + y = 0$
- ☒ $y'' - 2y' + y = 0$
- ☐ $y'' + y = 0$
- ☐ $y'' - \frac{3}{2}y' - y = 0$
- ☒ $y'' - \frac{1}{2}y' + y = 0$
- ☒ $y'' + \frac{1}{2}y' + y = 0$

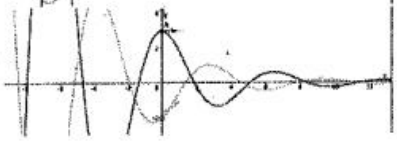
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

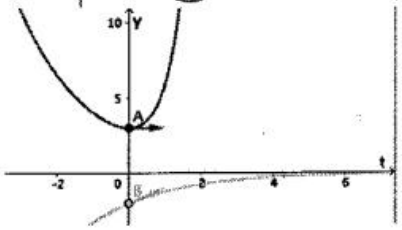


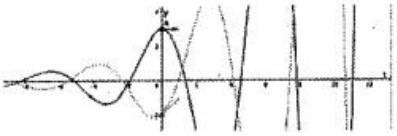
☐ 

☐ 

☒ 

☐ 

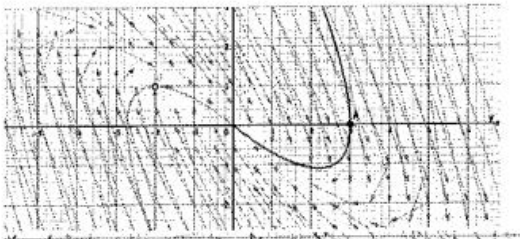
☐ 

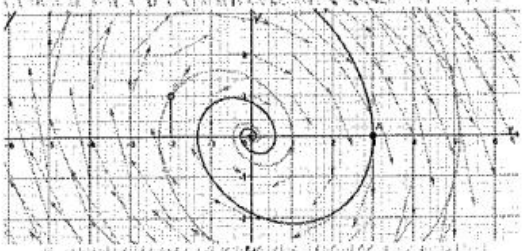
☐ 

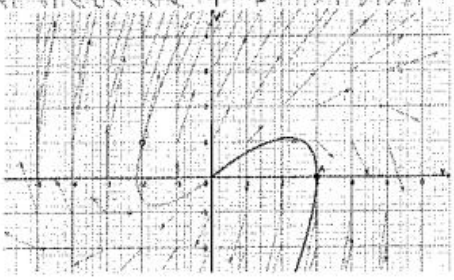
2/2

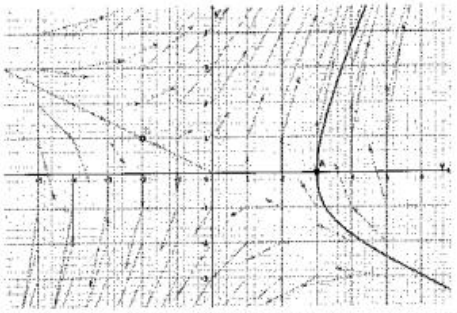
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' - 2y' + y = 0$.

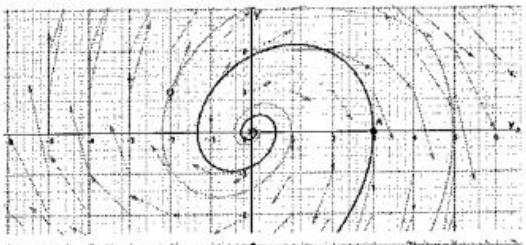
2/2

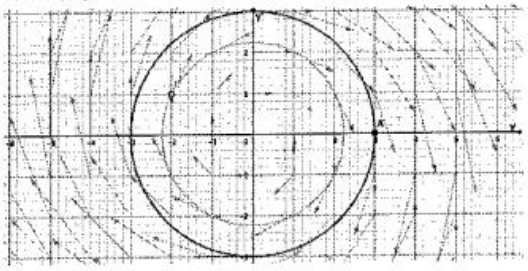
☐ 

☐ 

☒ 

☐ 

☐ 

☐ 

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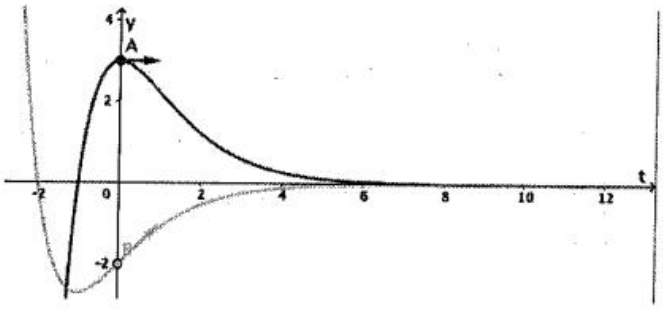
+123/4/29+

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



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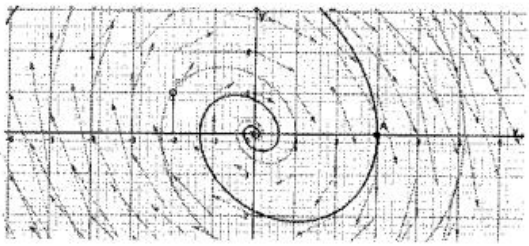
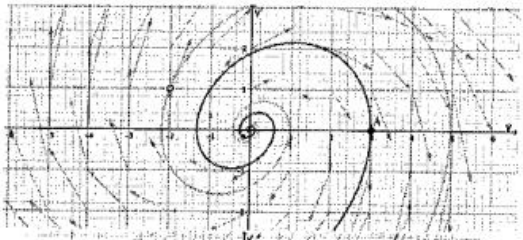
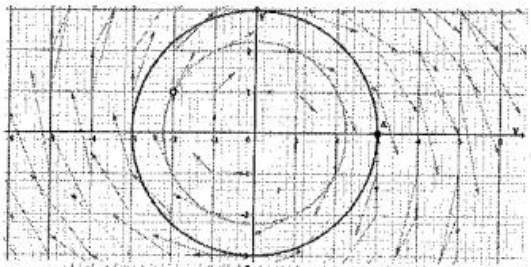
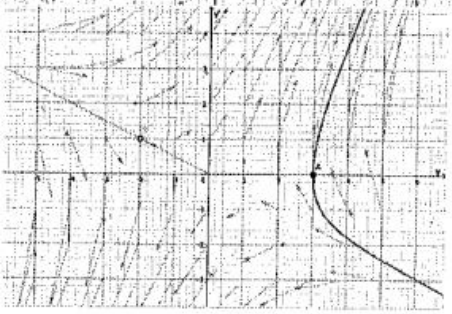
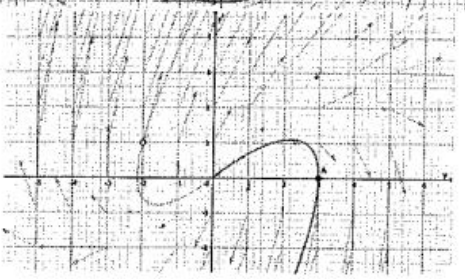
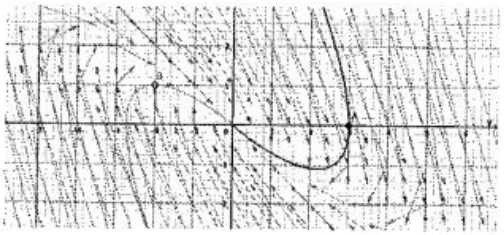
- [x] 
- [ ] 
- [ ] 
- [ ] 
- [ ] 
- [x] 

PIEDEBOUT LAURENT
Note: 16/20 (score total : 8/10)

+104/1/15+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
PIEDEBOUT Laurent

Attention à ne pas vous tromper, toute erreur invalide la copie !

Fdm2 – Printemps 2019

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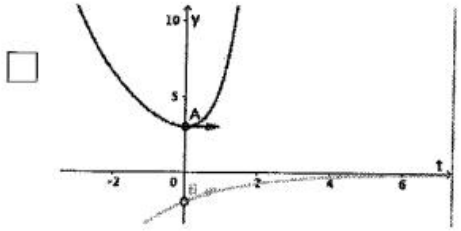
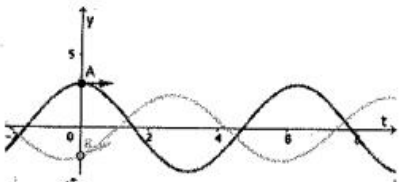
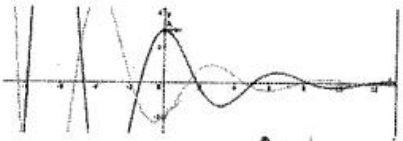
Les questions ont une seule bonne réponse, qui vaut 4 points. Cochez une seule réponse par question.

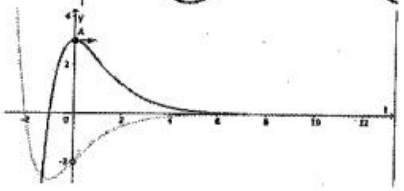
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' - 2y' + y = 0$.

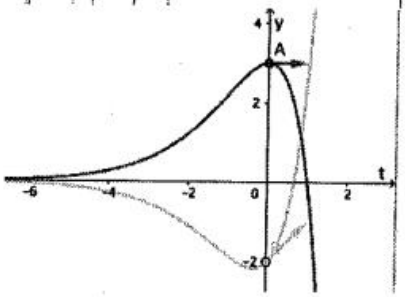
2/2

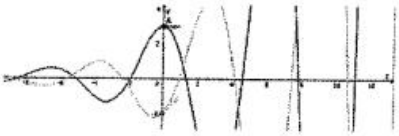




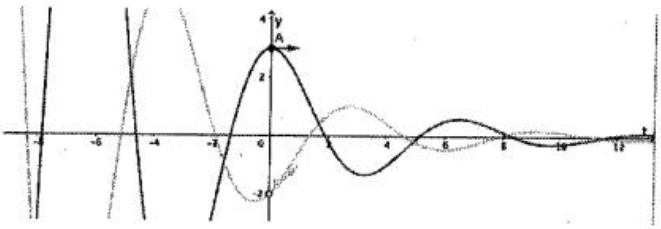








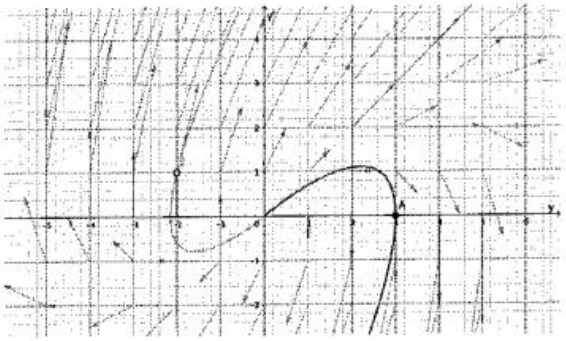
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

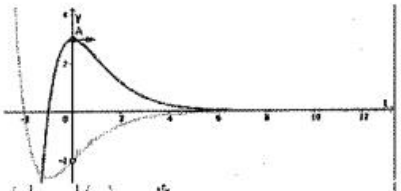


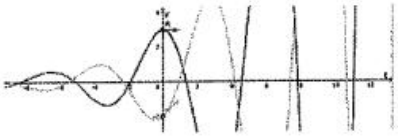
0/2

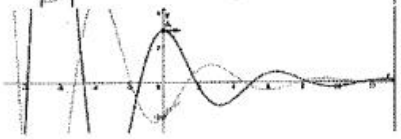
- [x] $y'' - \frac{1}{2}y' + y = 0$
- [ ] $y'' - \frac{3}{2}y' - y = 0$
- [ ] $y'' - 2y' + y = 0$
- [ ] $y'' + 2y' + y = 0$
- [x] $y'' + \frac{1}{2}y' + y = 0$
- [ ] $y'' + y = 0$

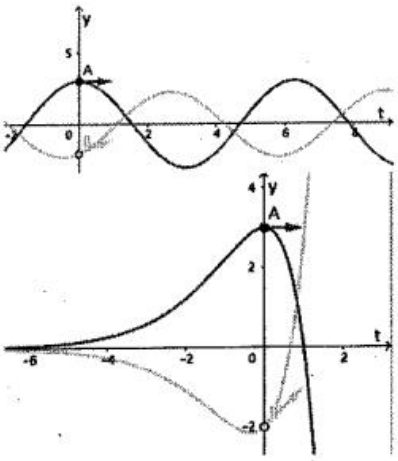
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

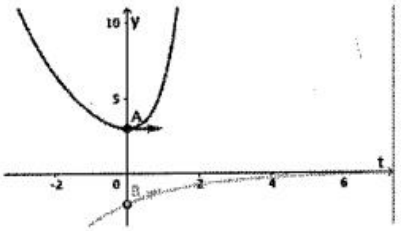


☐ 

☐ 

☐ 

☒ 

☐ 

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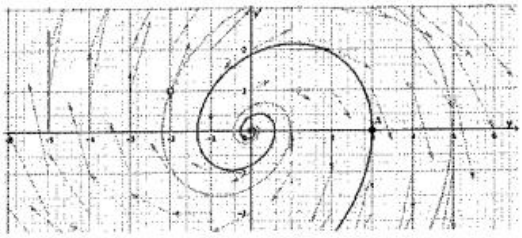
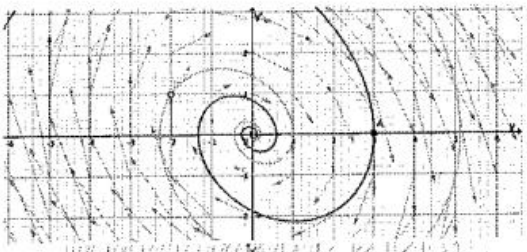
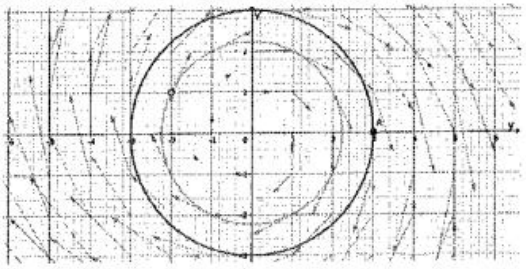
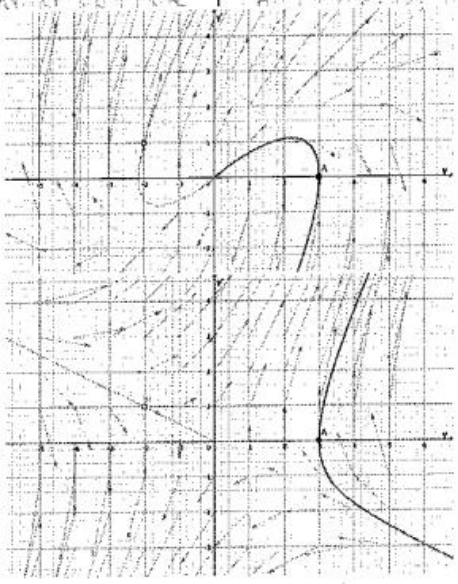
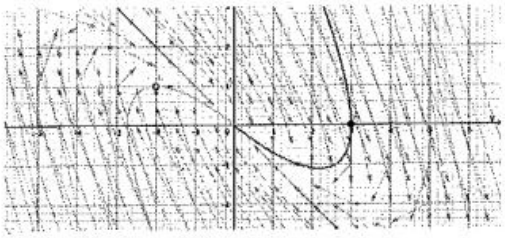
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' - 2y' + y = 0$.

☐ 

☐ 

☐ 

☒ 

☐ 

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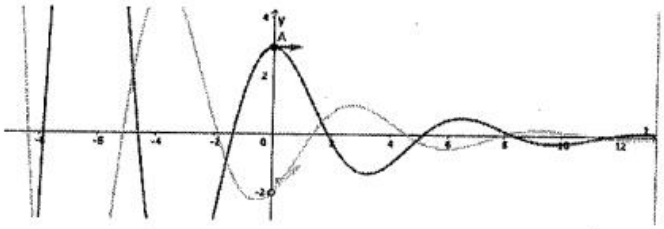
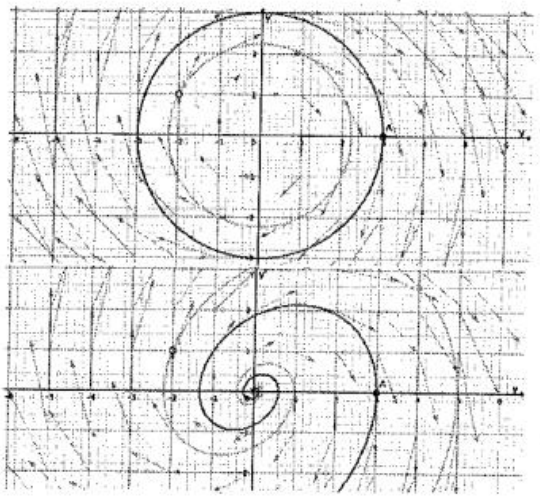
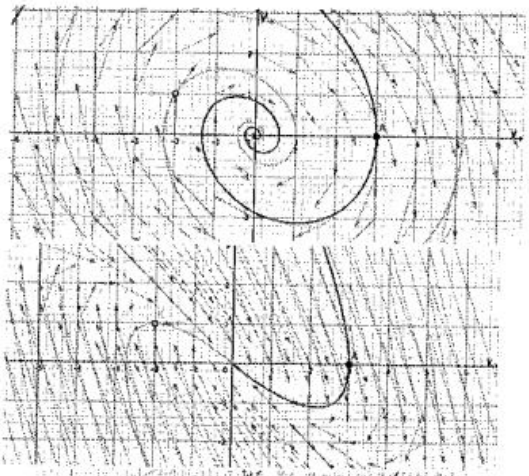
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☐ 

☒ 

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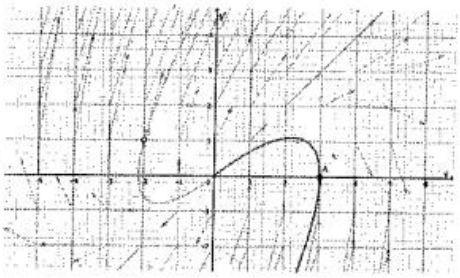
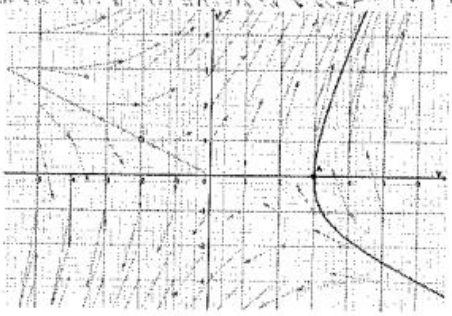
☐ 

☐ 

2/2

PINET CECILE
Note: 8/20 (score total : 4/10)

+126/1/20+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Pinet Cécile

**Attention à ne pas vous tromper,
toute erreur invalide la copie !**

☐0	☐0	☐0	■0	☐0	☐0	☐0	☐0
■1	■1	☐1	☐1	☐1	☐1	☐1	☐1
☐2	☐2	☐2	☐2	☐2	☐2	■2	☐2
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☐5	☐5	☐5	☐5	☐5	☐5	☐5	☐5
☐6	☐6	☐6	☐6	☐6	☐6	☐6	☐6
☐7	☐7	☐7	☐7	☐7	☐7	☐7	☐7
☐8	☐8	■8	☐8	☐8	■8	☐8	☐8
☐9	☐9	☐9	☐9	■9	☐9	☐9	☐9

Fdm2 – Printemps 2019

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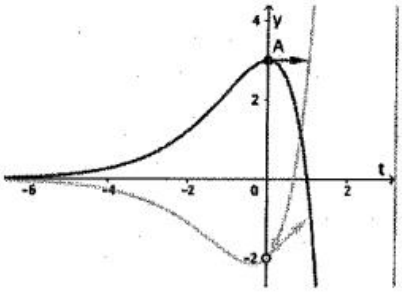
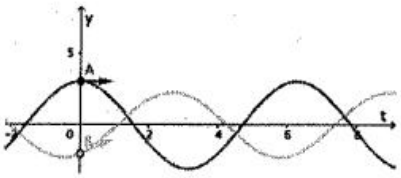
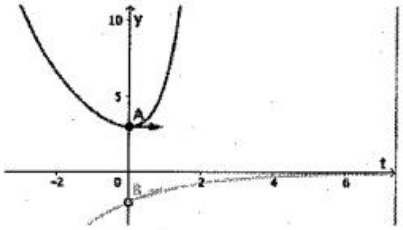
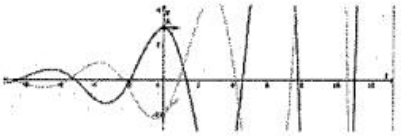
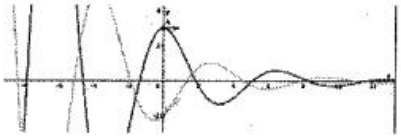
0/2

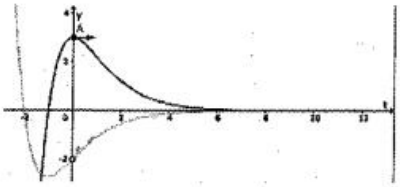
☒ 

☐ 

● 

☐ 

☐ 

☐ 

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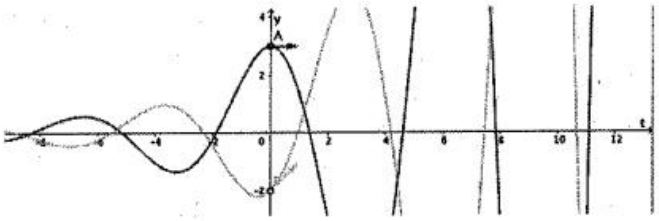

0/2

$y'' + y = 0$ ☐ $y'' - \frac{3}{2}y' - y = 0$ ☐ $y'' + \frac{1}{2}y' + y = 0$ ☒ $y'' - \frac{1}{2}y' + y = 0$

● $y'' + 2y' + y = 0$ ☐ $y'' - 2y' + y = 0$ ☐ $y'' - 2y' + y = 0$

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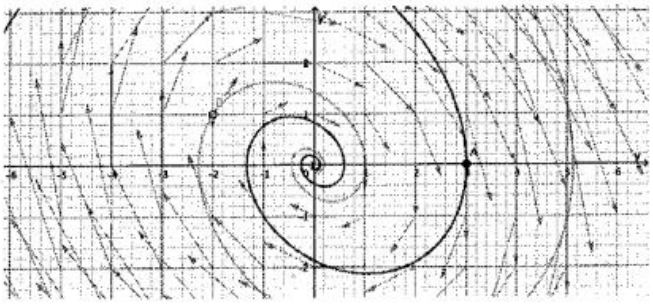

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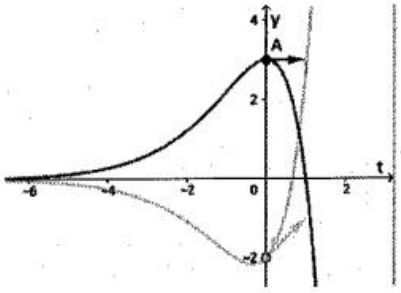

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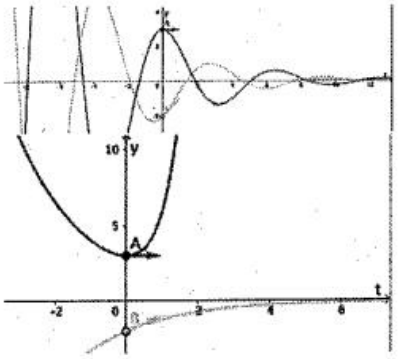

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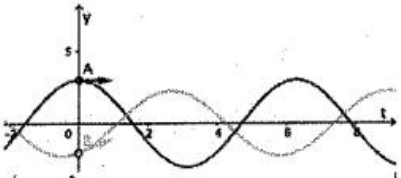

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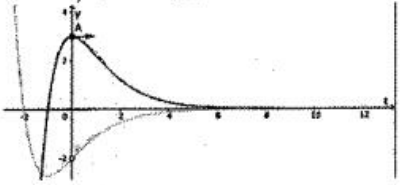

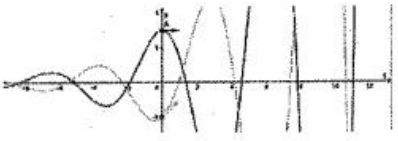

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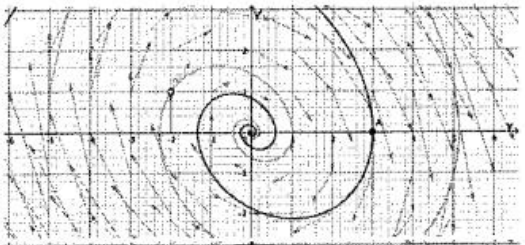
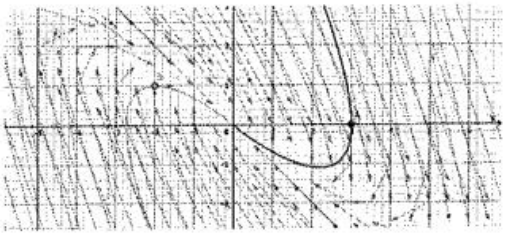
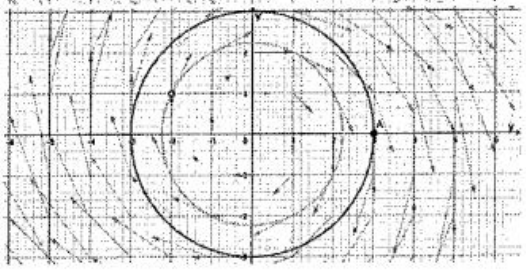
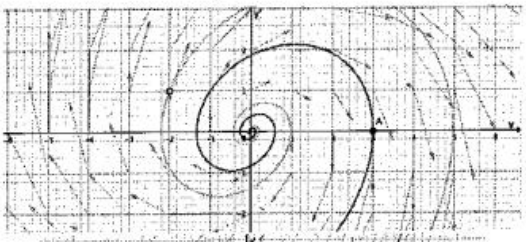
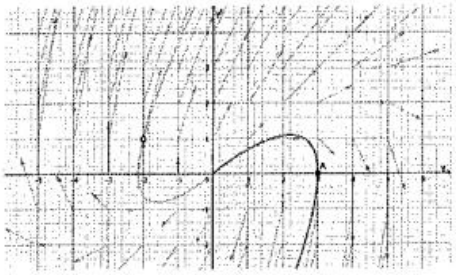
0/2

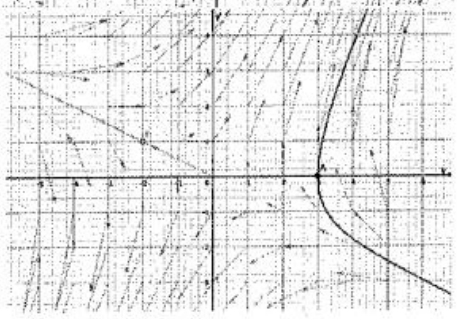
☐ 

● 

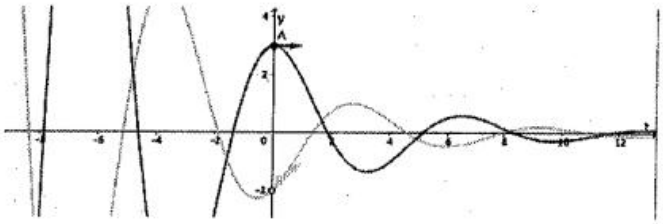
☐ 

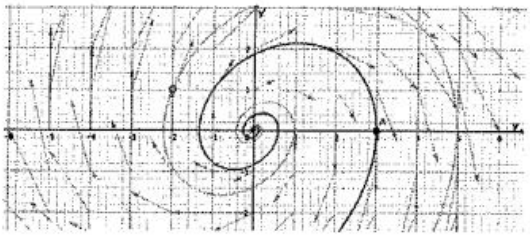
☒ 

☐ 

☐ 

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :





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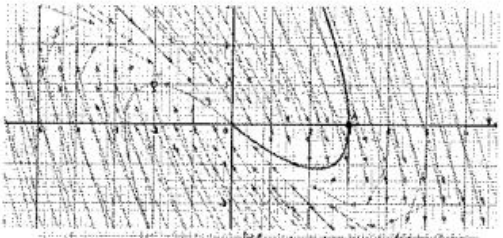

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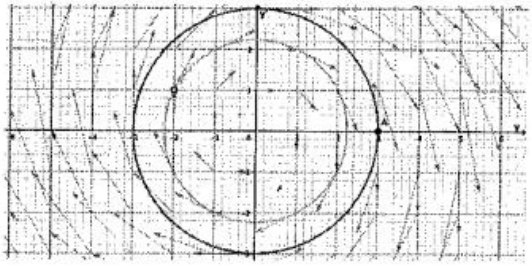

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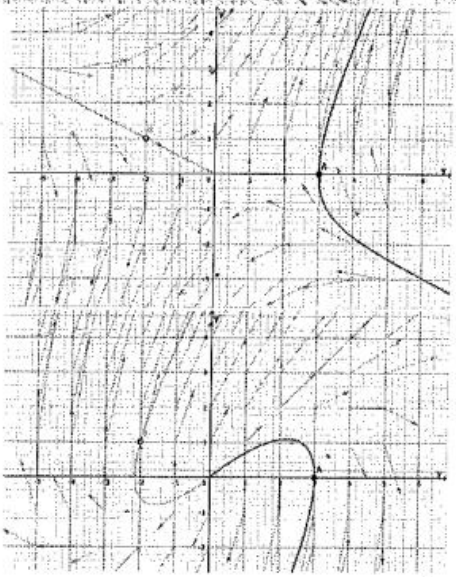

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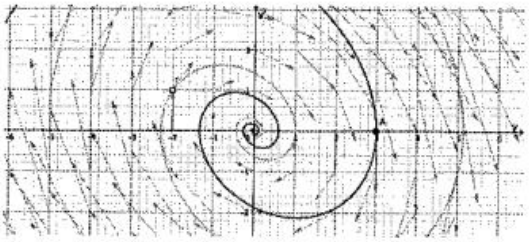


☐

PIRON BASTIEN
Note: 12/20 (score total : 6/10)

+111/1/18+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
Bastien PIRON

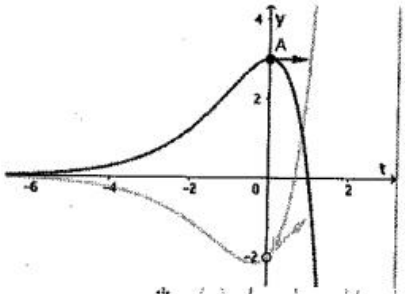
Attention à ne pas vous tromper, toute erreur invalide la copie !

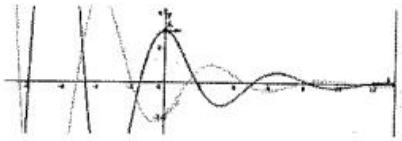
Fdm2 – Printemps 2019

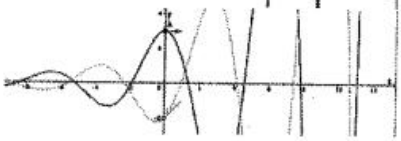
Règlement – L'épreuve dure 40 minutes. Les calculatrices sont interdites. Les téléphones portables doivent être éteints. Il n'est admis de consulter aucun document.
Les questions ont une seule bonne réponse, qui vaut 4 points. Cochez une seule réponse par question.

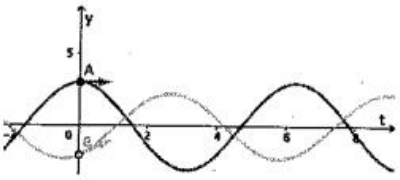
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

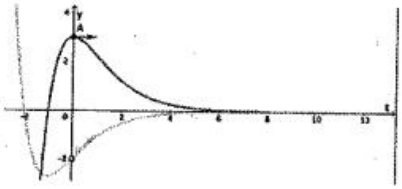
0/2

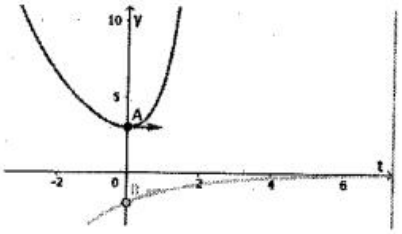




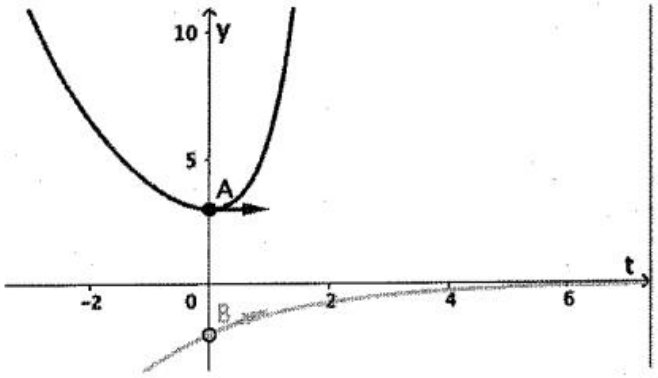








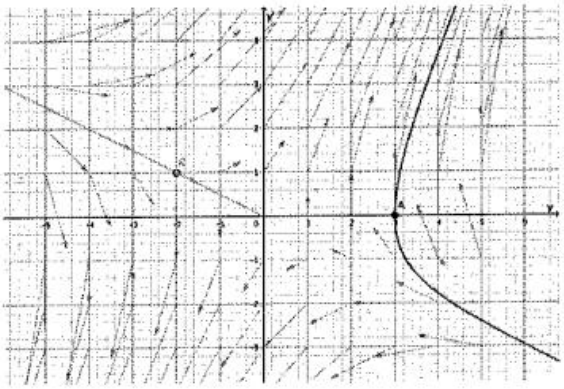
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

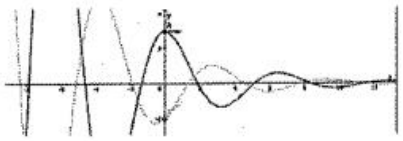
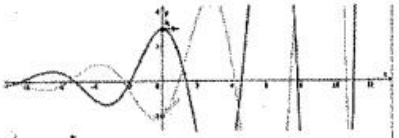
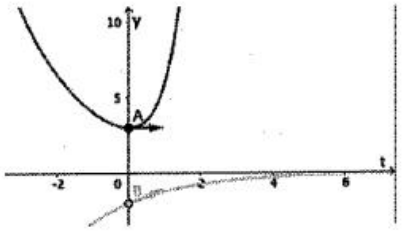


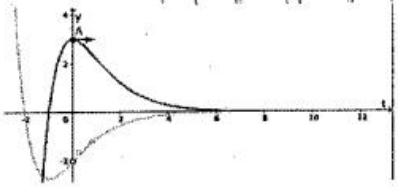
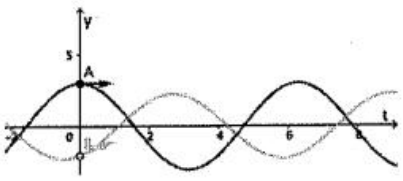
0/2

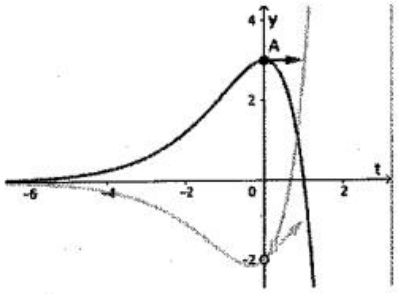
- [x] $y'' - \frac{3}{2}y' - y = 0$
- [ ] $y'' - \frac{1}{2}y' + y = 0$
- [ ] $y'' + y = 0$
- [x] $y'' + 2y' + y = 0$
- [ ] $y'' - 2y' + y = 0$
- [ ] $y'' + \frac{1}{2}y' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



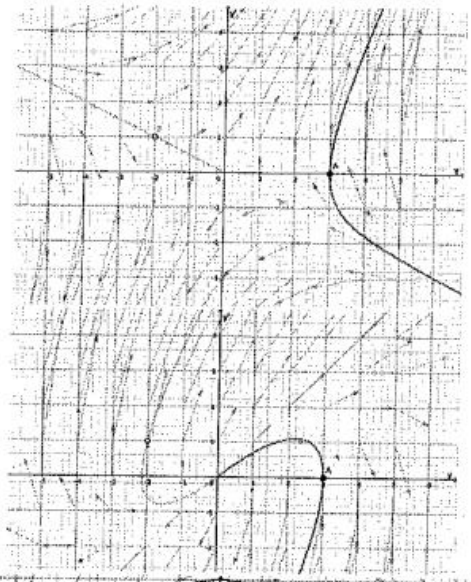
- [ ] 
- [ ] 
- [x] 

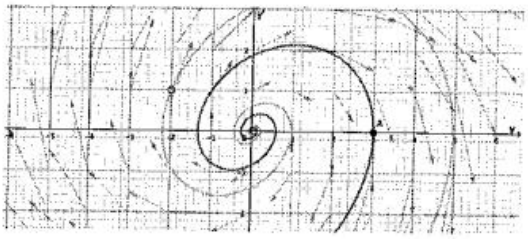
- [ ] 
- [ ] 

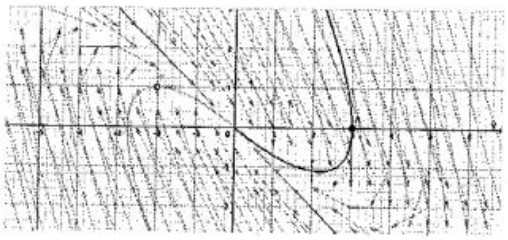
- [ ] 

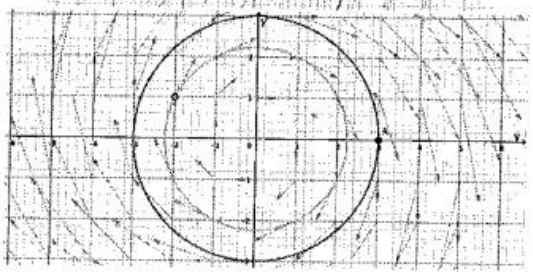
2/2

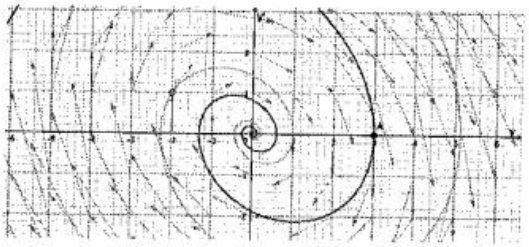
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' - \frac{1}{2}y' + y = 0$.

☐ 

☒ 

☐ 

☐ 

☐ 

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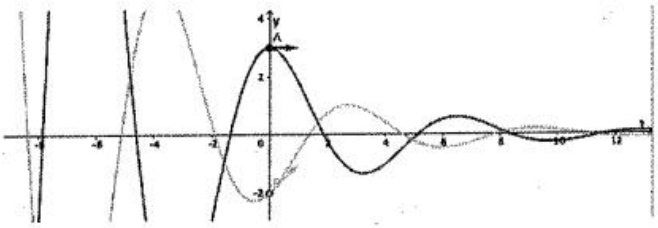
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



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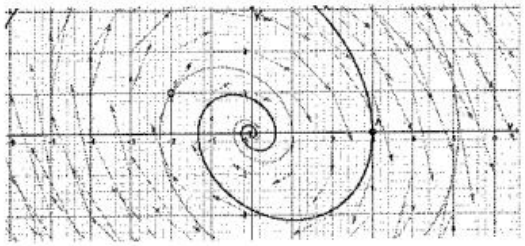
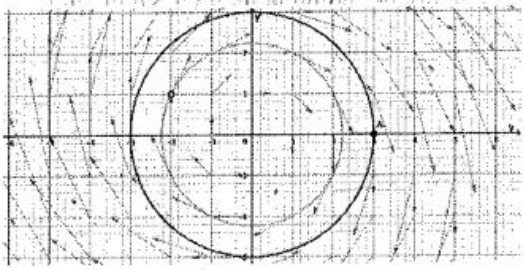
☒ 

☐ 

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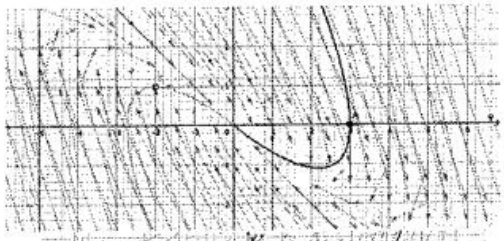
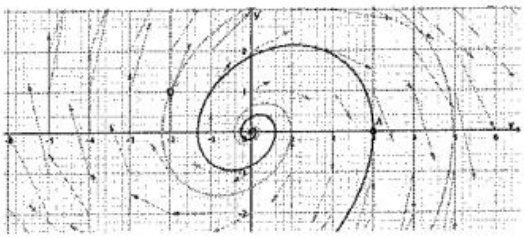
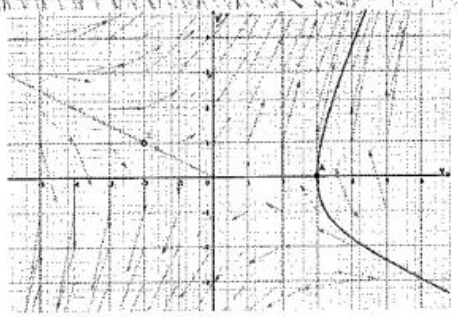
☐ 

☐ 

☐ 

PISCIONE THOMAS
Note: 16/20 (score total : 8/10)

+105/1/11+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
PISCIONE Thomas

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Fdm2 – Printemps 2019

Règlement – L'épreuve dure 40 minutes. Les calculatrices sont interdites. Les téléphones portables doivent être éteints. Il n'est admis de consulter aucun document.
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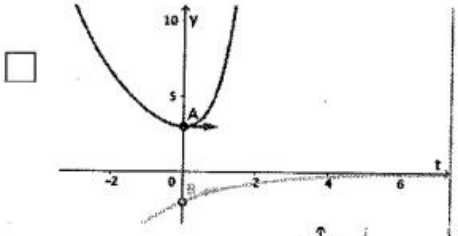
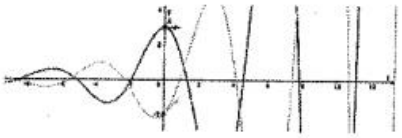
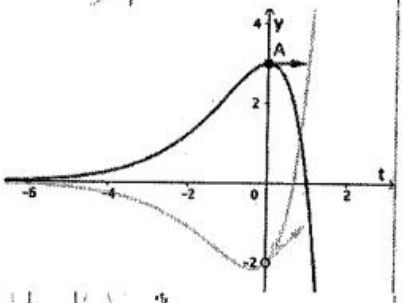
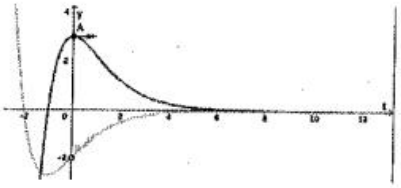
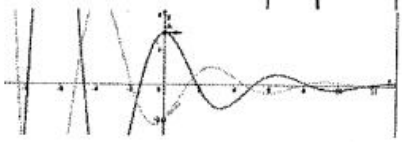
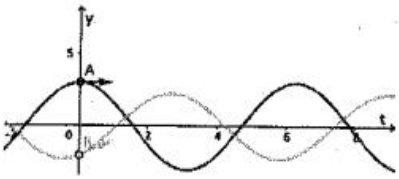






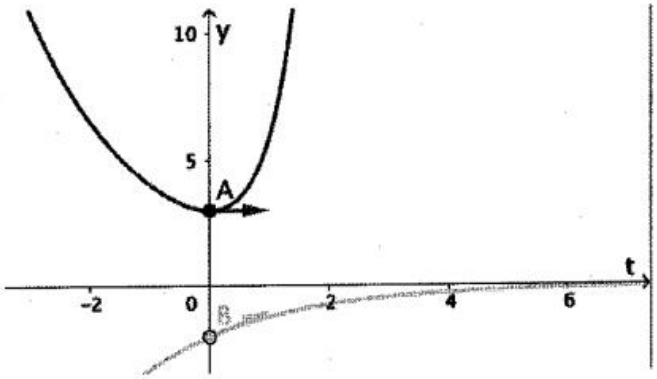






2/2

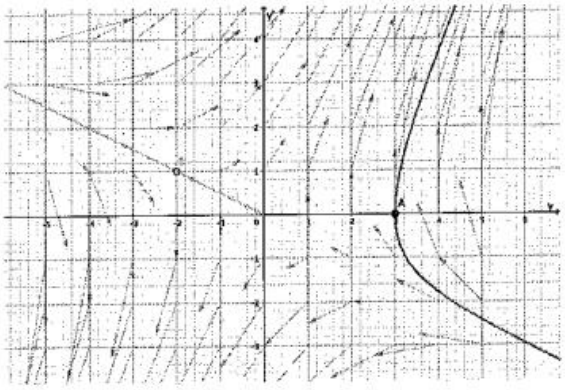
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



0/2

- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ☐ $y'' + 2y' + y = 0$
- ☐ $y'' - 2y' + y = 0$
- ☒ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' + y = 0$

Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :



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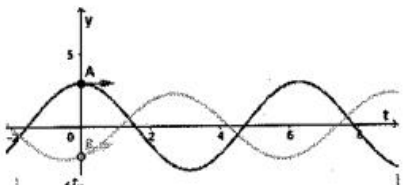
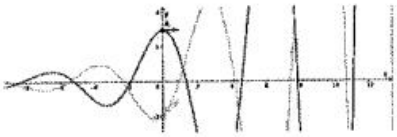
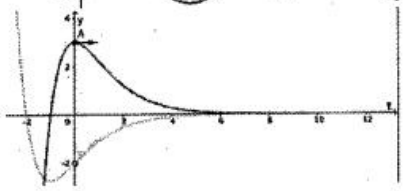
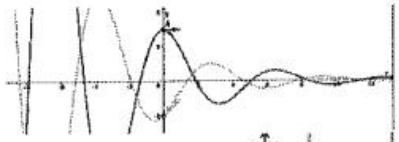
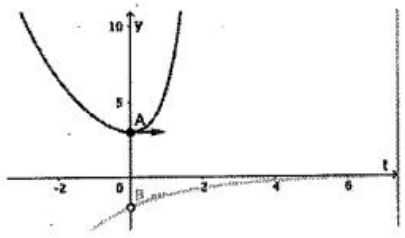
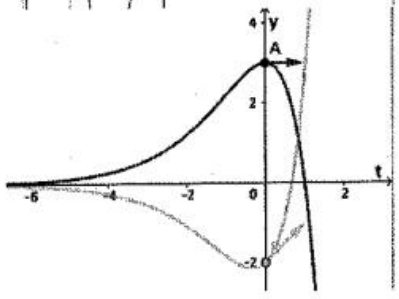
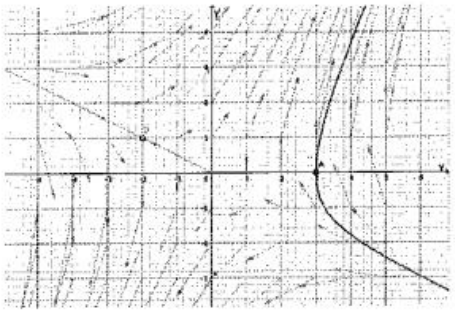
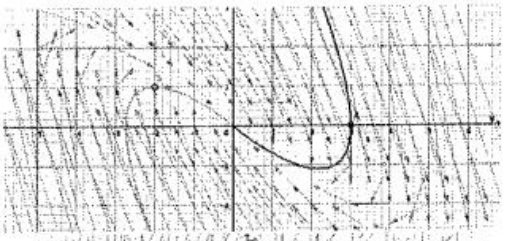
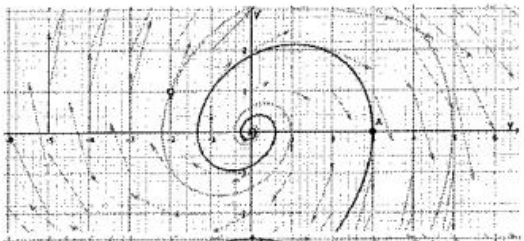
- ☐ 
- ☐ 
- ☐ 
- ☐ 
- ☒ 
- ☐ 

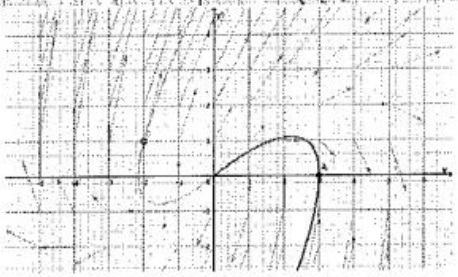
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + \frac{1}{2}y' + y = 0$.

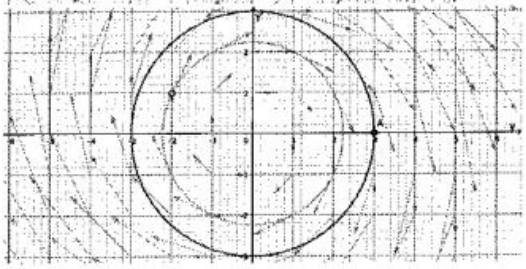
2/2

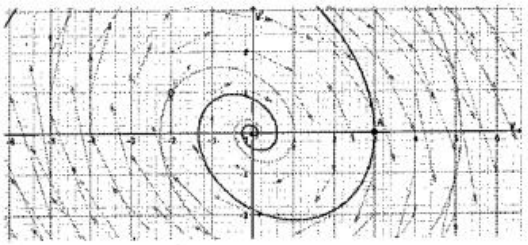
☐ 

☐ 

☐ 

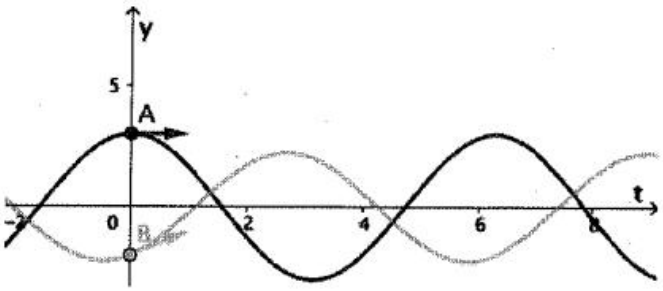
☐ 

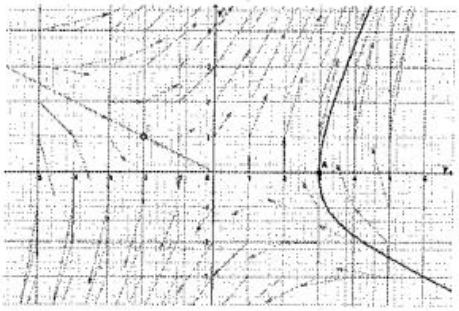
☐ 

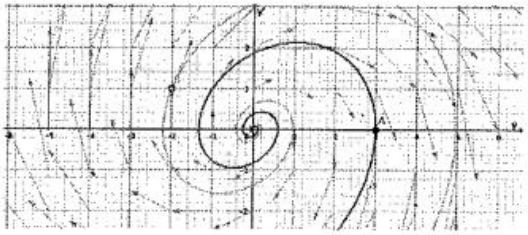
☒ 

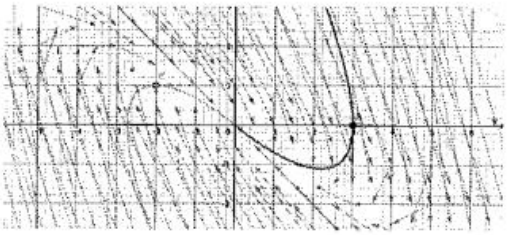
+105/4/8+

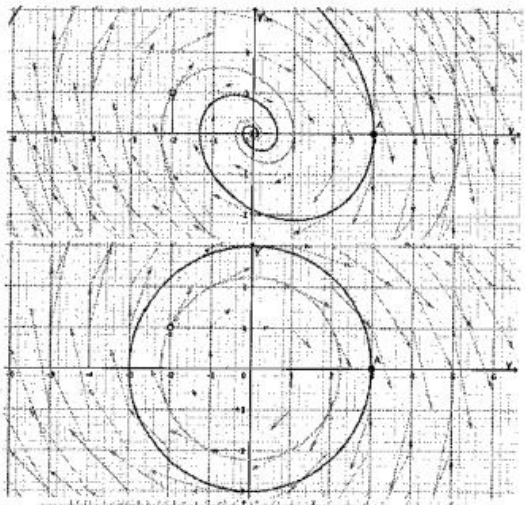
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

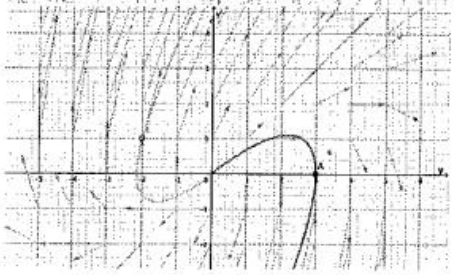


☐ 

☐ 

☐ 

☒ 

☐ 

2/2

POULAT MELANIE
Note: 20/20 (score total : 10/10)

+127/1/16+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
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Nom et prénom :
Poulat Mélanie

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Fdm2 – Printemps 2019

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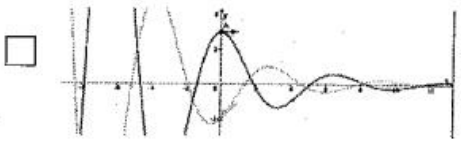

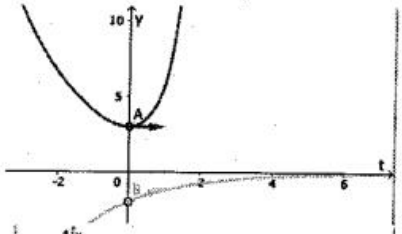

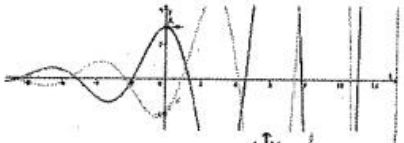

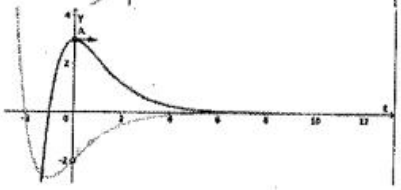

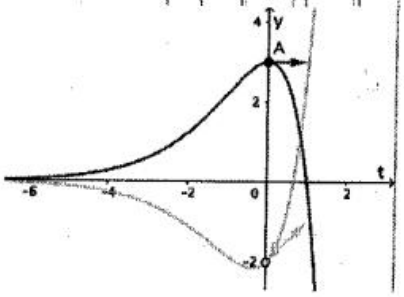

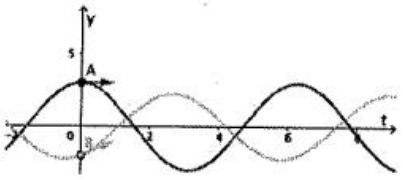

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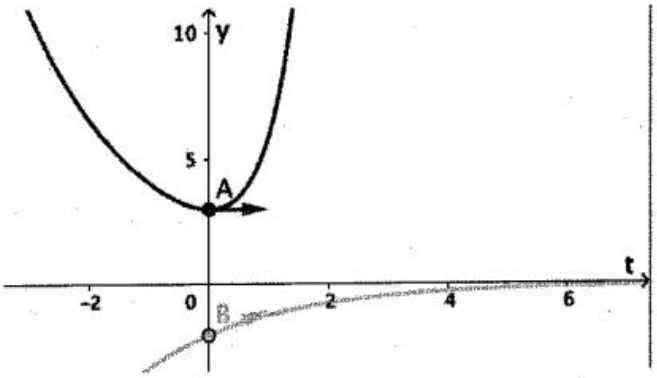
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



2/2

- [x] $y'' - \frac{3}{2}y' - y = 0$
- [ ] $y'' - 2y' + y = 0$
- [ ] $y'' + 2y' + y = 0$
- [ ] $y'' + \frac{1}{2}y' + y = 0$
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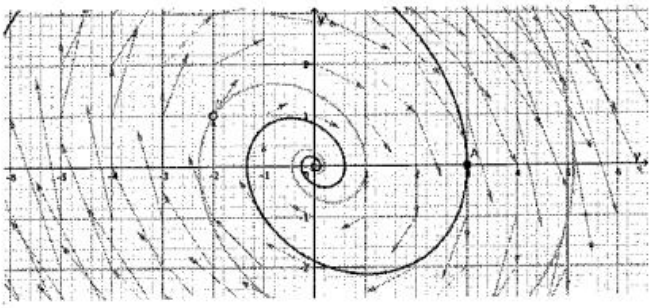
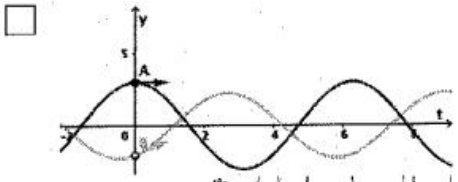
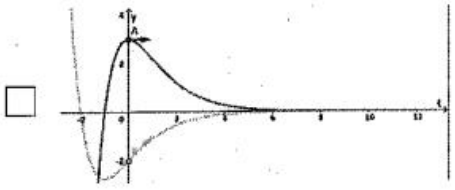
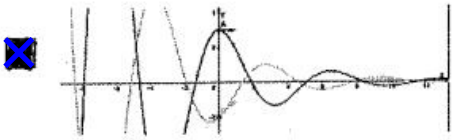
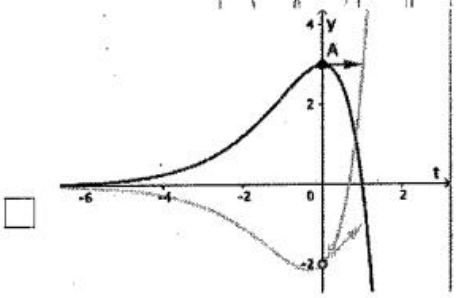
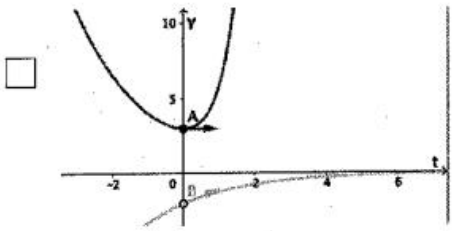
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

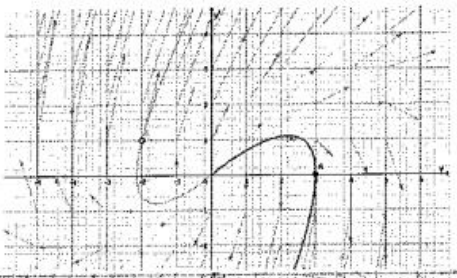


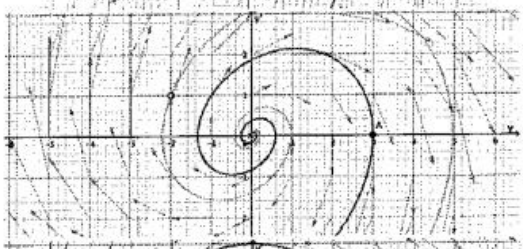
2/2

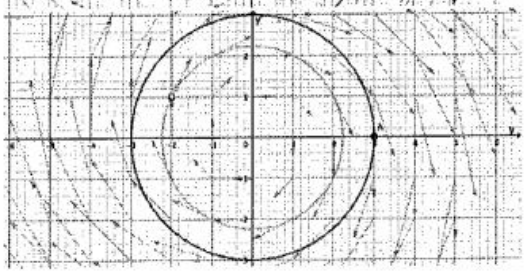
- [ ] 
- [ ] 
- [x] 
- [ ] 
- [ ] 

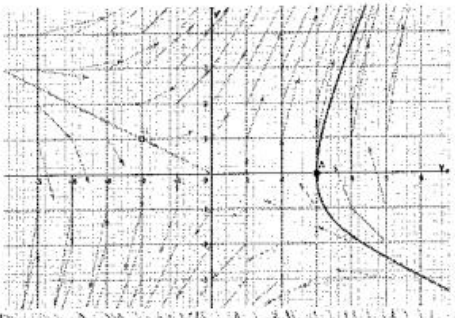
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + \frac{1}{2}y' + y = 0$.

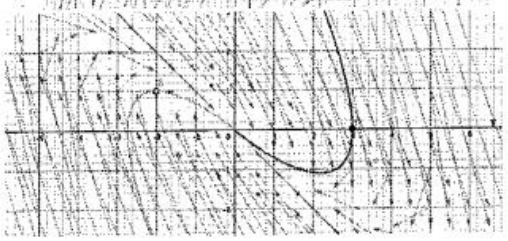
2/2

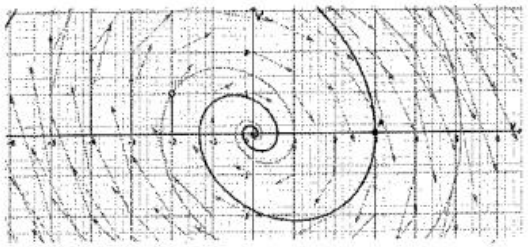
☐ 

☐ 

☐ 

☐ 

☐ 

☒ 

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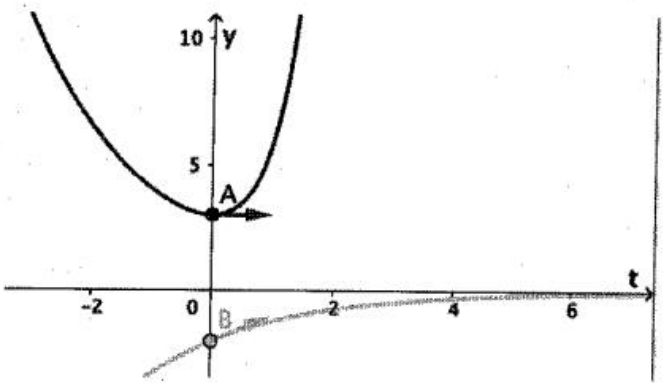
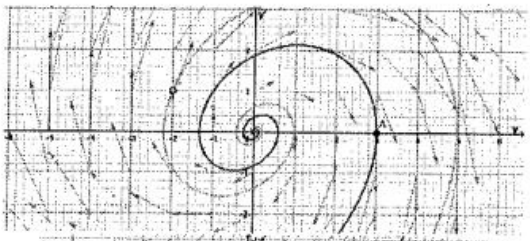
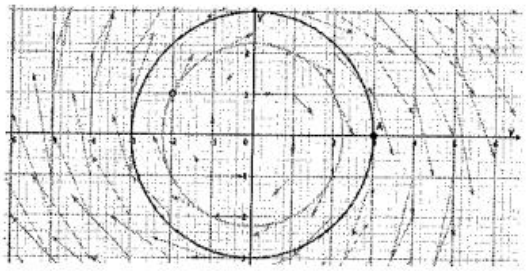
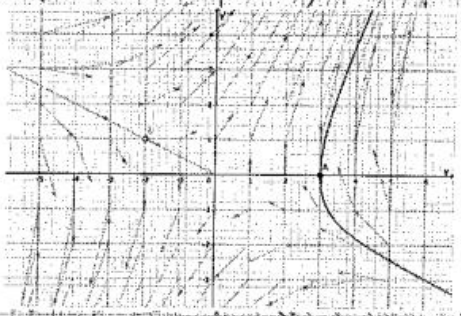


☐ 

☐ 

☒ 

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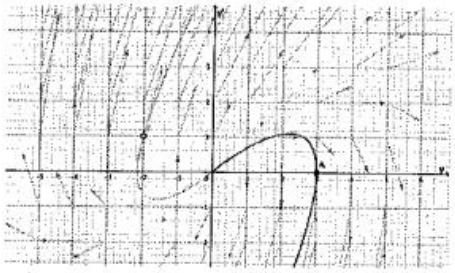
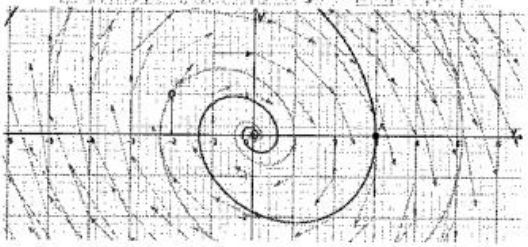
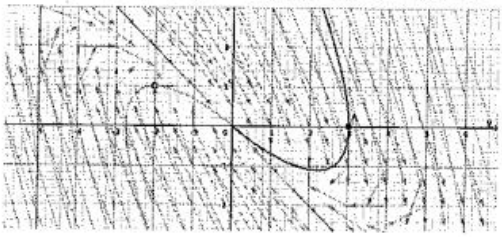
☐ 

☐ 

☐ 

QUINTON MARIE
Note: 4/20 (score total : 2/10)

+115/1/2+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :

Quinton

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0/2

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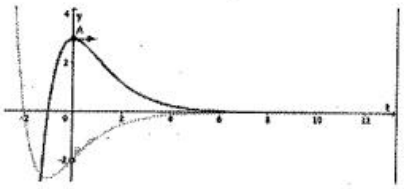

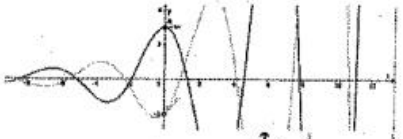

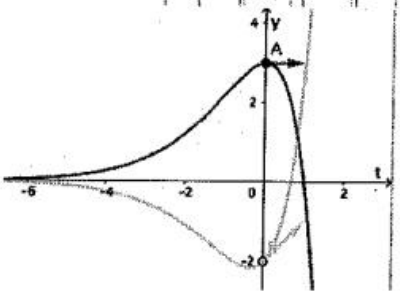

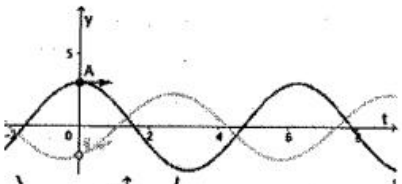

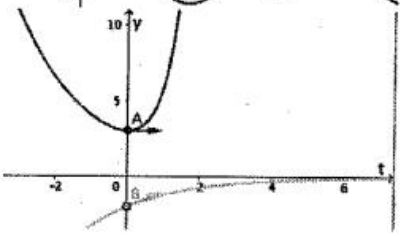

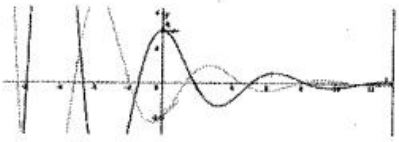

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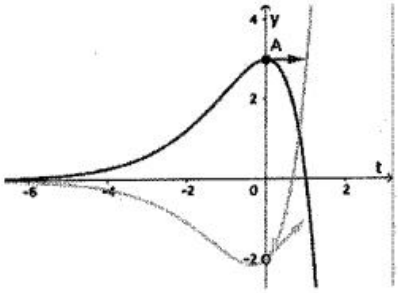

0/2

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- ● $y'' + y = 0$
- ☒ $y'' - 2y' + y = 0$
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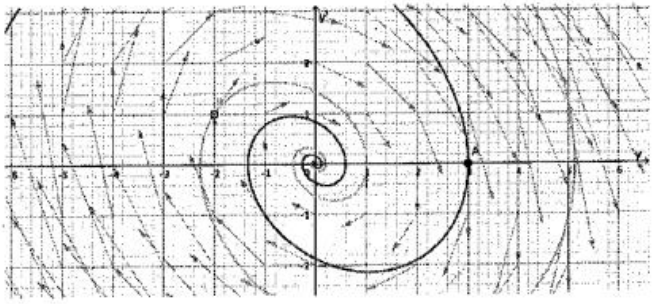

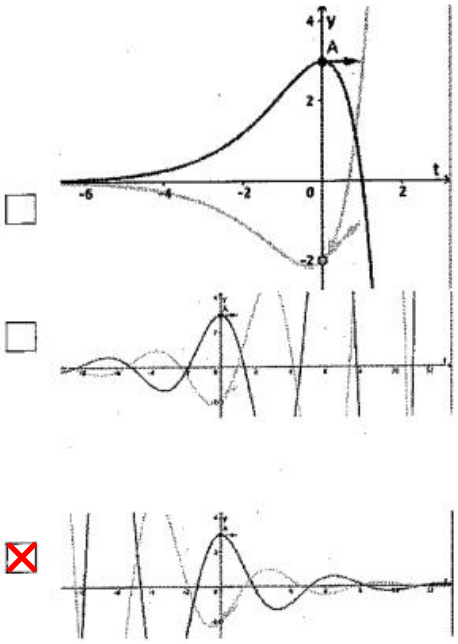

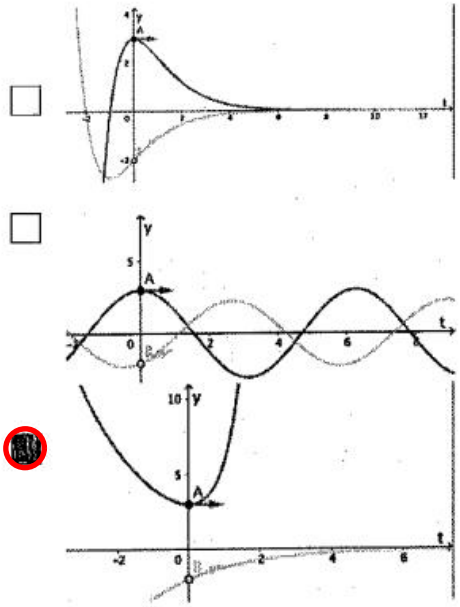

0/2

- ☐
- ☐
- ☒
- ☐
- ●
- ☐

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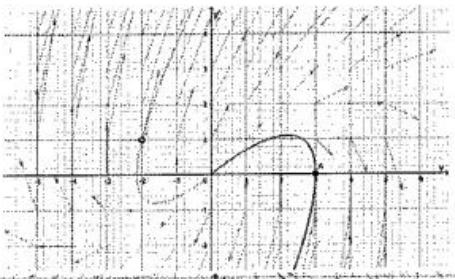
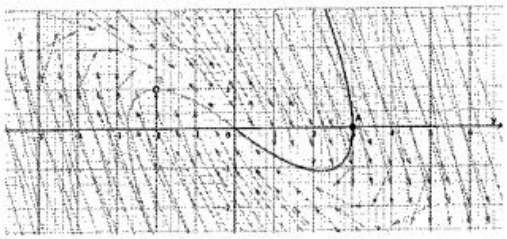
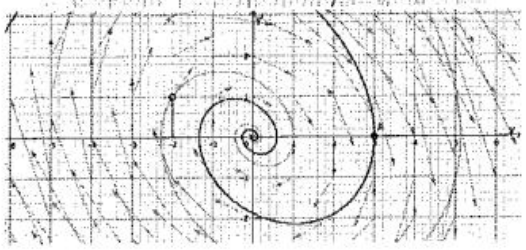
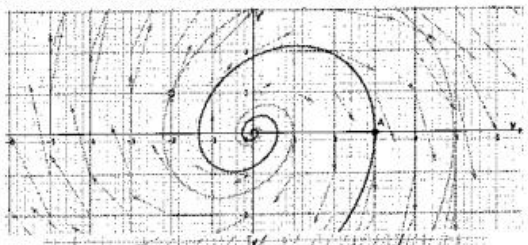
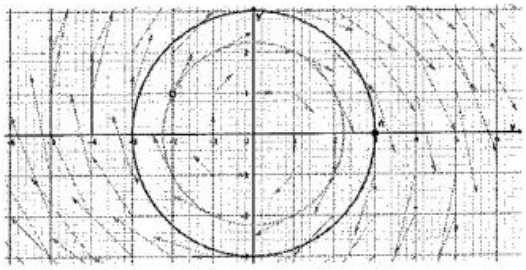
0/2

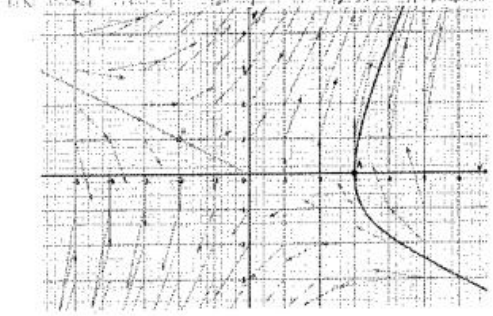
☒ 

☐ 

☐ 

☒ 

☐ 

☐ 

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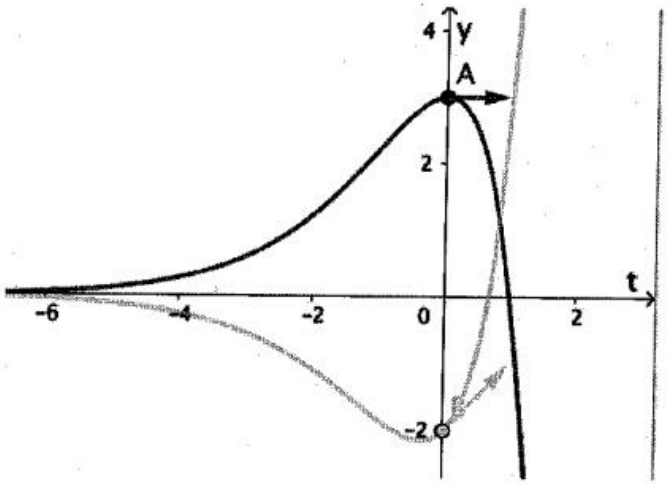
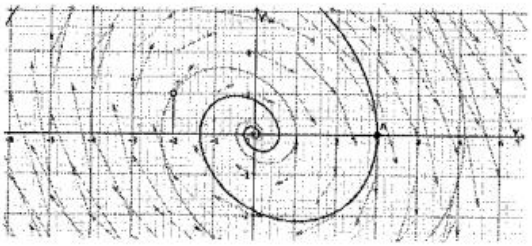
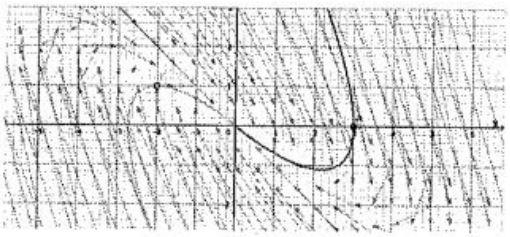
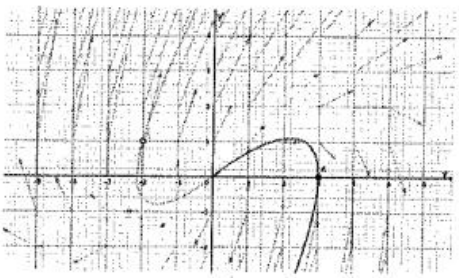
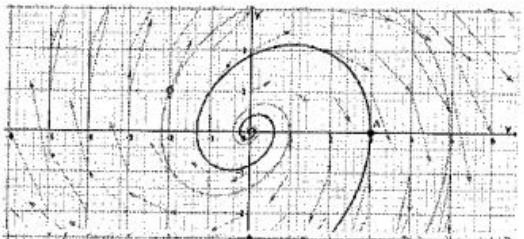
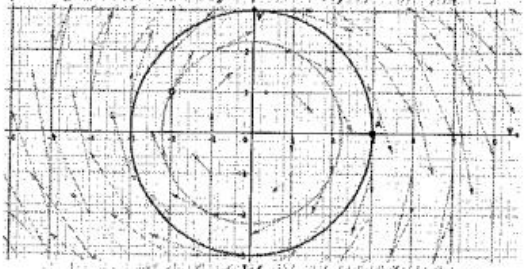


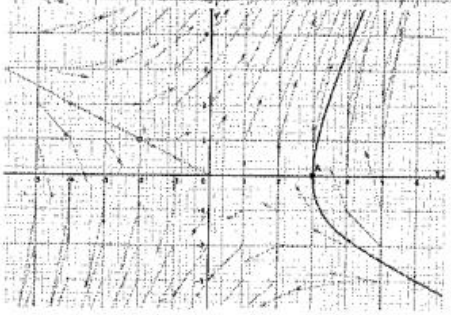
☐ 

☐ 

☒ 

☐ 

☐ 

☐ 

2/2

VANDEN HENDE CATHERINE
Note: 0/20 (score total : 0/10)

+107/1/3+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
VANDEN HENDE Catherine

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7 7 7 7 7 7 7 7
8 8 **8** 8 8 8 8 8
9 9 9 9 9 9 9 9

Fdm2 – Printemps 2019

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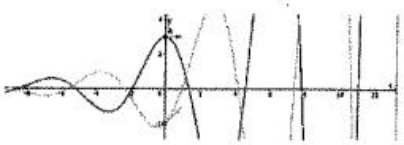
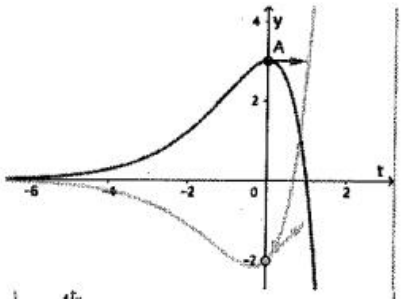
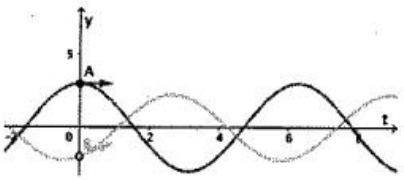
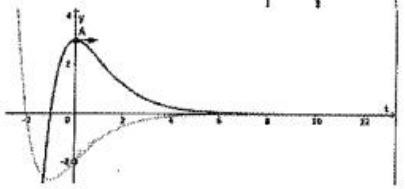
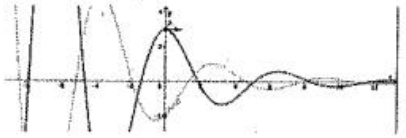
0/2

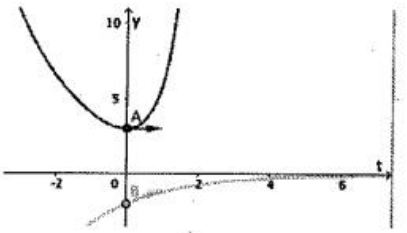
☐ 

☐ 

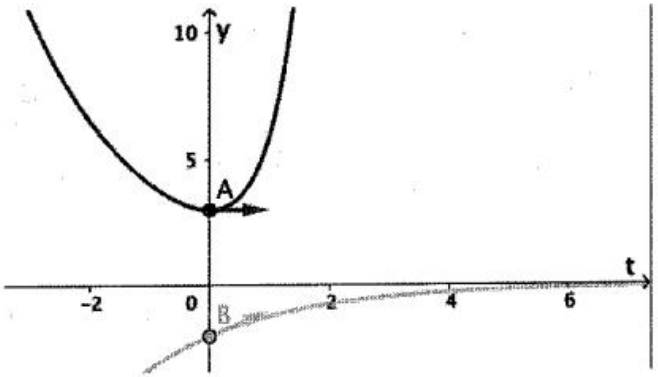
☒ 

● 

☐ 

☐ 

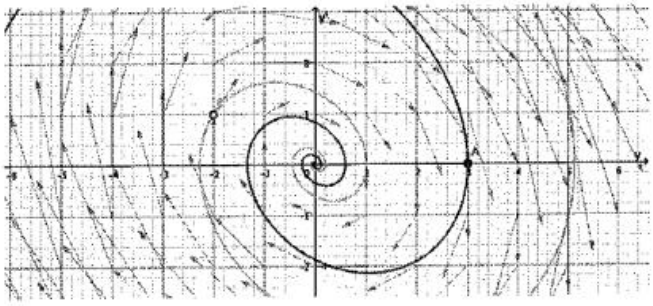
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :

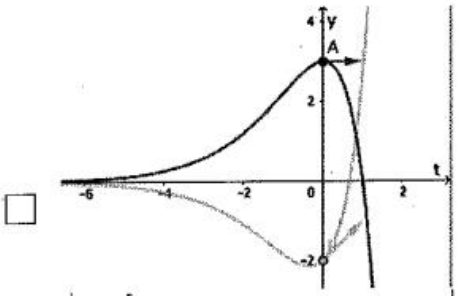


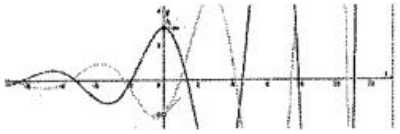
0/2

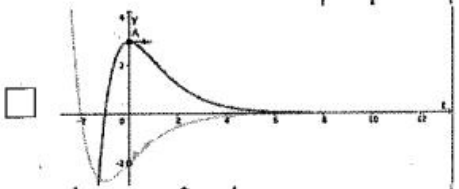
- ☐ $y'' + y = 0$
- ☐ $y'' - 2y' + y = 0$
- ☒ $y'' - \frac{3}{2}y' - y = 0$
- ☐ $y'' + \frac{1}{2}y' + y = 0$
- ☐ $y'' - \frac{1}{2}y' + y = 0$
- ● $y'' + 2y' + y = 0$

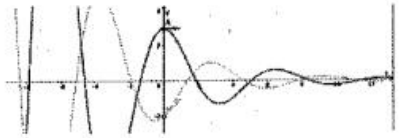
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

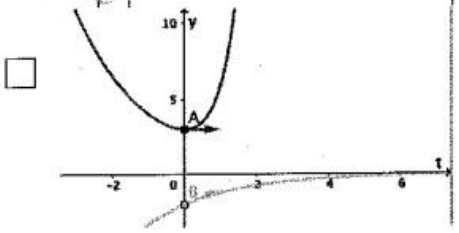


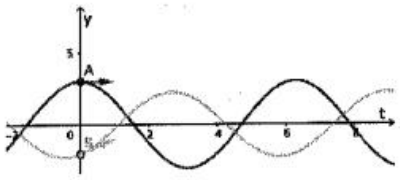










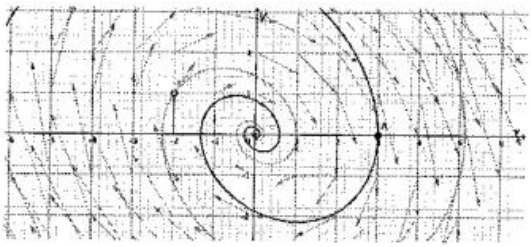


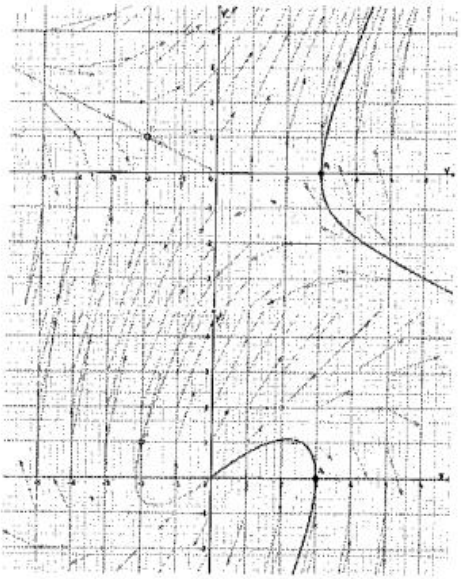
0/2

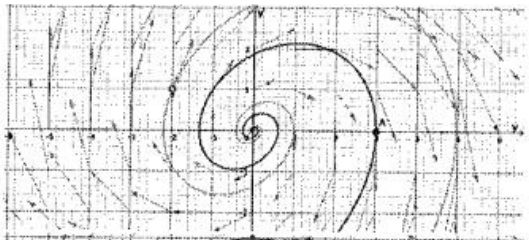
- ☐
- ☒
- ☐
- ☐

Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + 2y' + y = 0$.

0/2

☐ 

● 

☐ 

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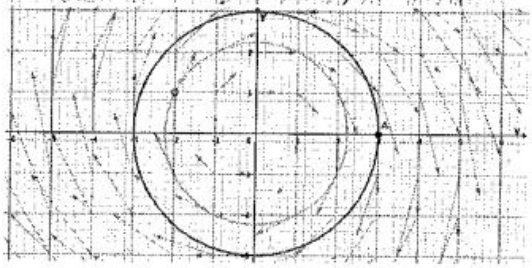
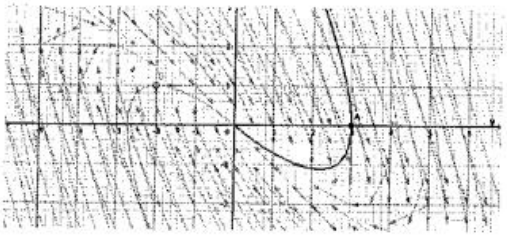
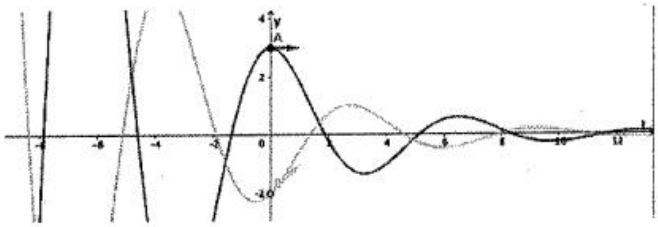
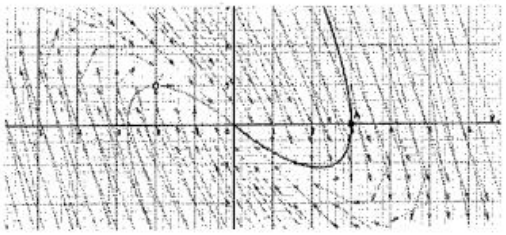
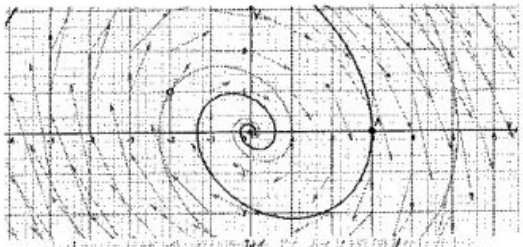
☐ 

☒ 

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



☐ 

☒ 

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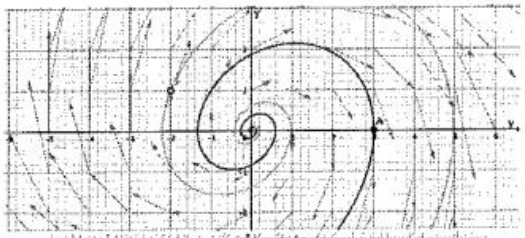
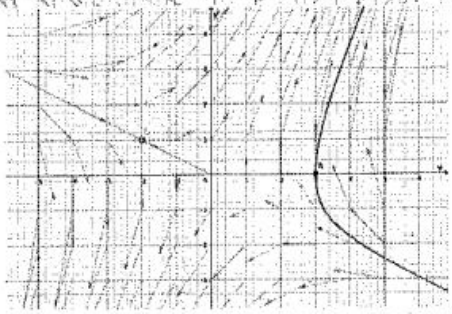
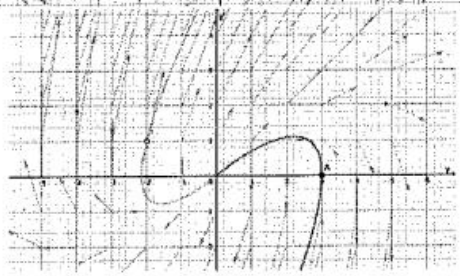
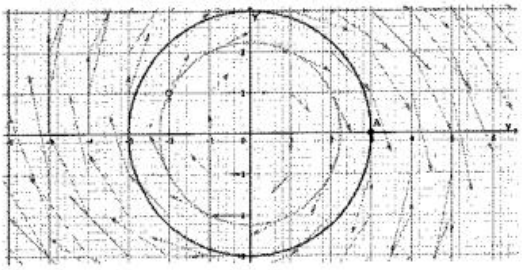
● 

☐ 

☐ 

☐ 

WACHOWIAK WOJCIECH
Note: 4/20 (score total : 2/10)

+113/1/10+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
WACHOWIAK Wojciech

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Fdm2 – Printemps 2019

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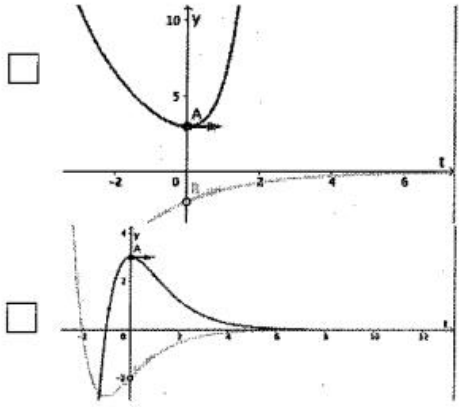
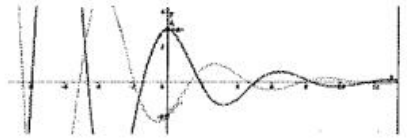
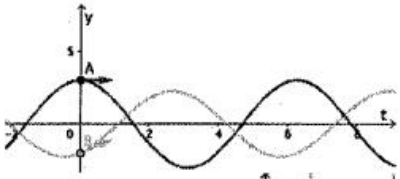
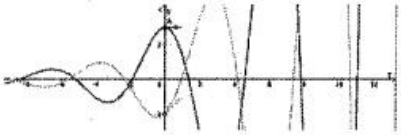
Question 1 Trouver parmi les graphes la solution à l'équation différentielle suivante : $y'' - \frac{1}{2}y' + y = 0$.

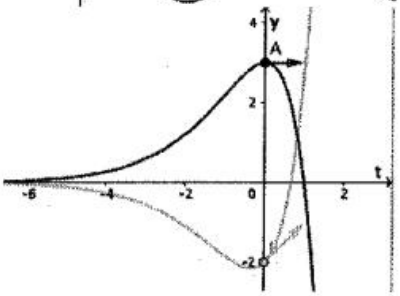
0/2



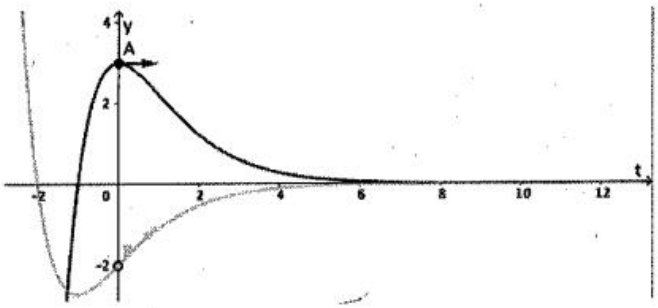








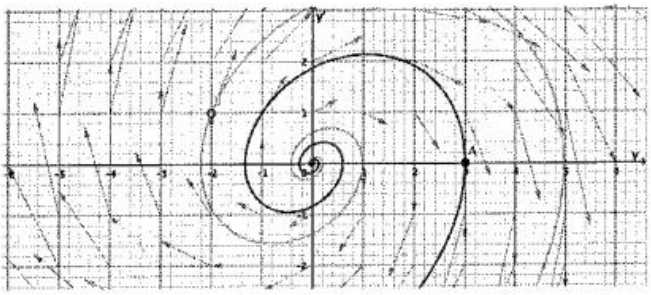
Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



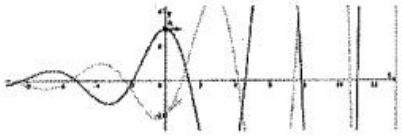
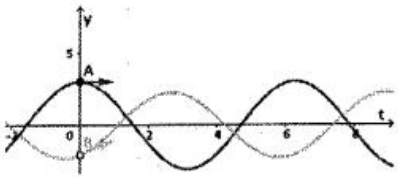
0/2

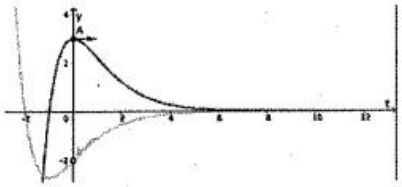
- [x] $y'' - 2y' + y = 0$
- [x] $y'' + 2y' + y = 0$
- [ ] $y'' + \frac{1}{2}y' + y = 0$
- [x] $y'' + y = 0$
- [x] $y'' - \frac{3}{2}y' - y = 0$
- [ ] $y'' - \frac{1}{2}y' + y = 0$

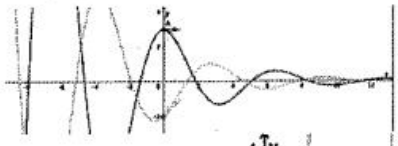
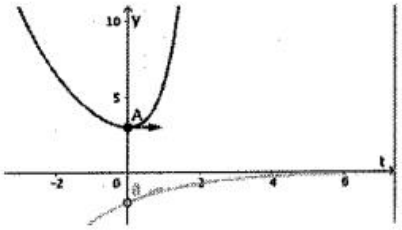
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

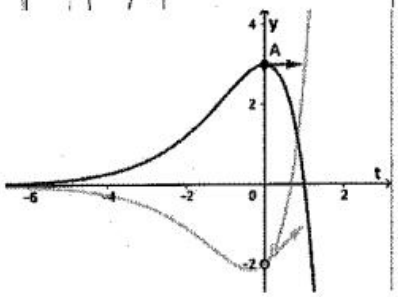


2/2

- [x] 
- [ ] 

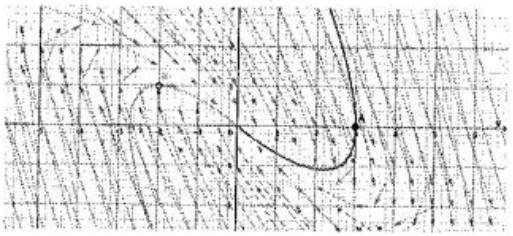
- [ ] 

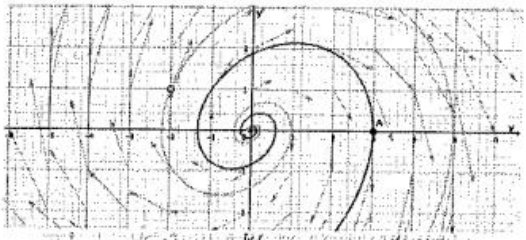
- [ ] 
- [ ] 

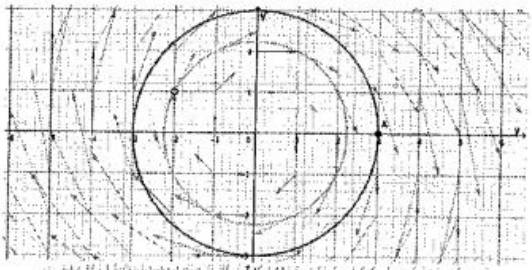
- [ ] 

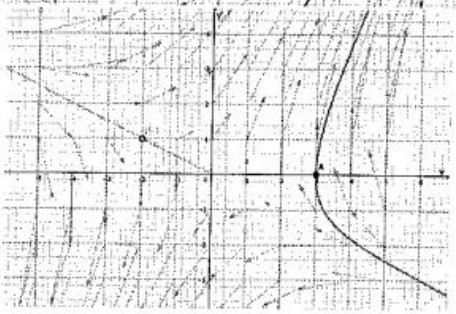
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + -\frac{3}{2}y' - y = 0$.

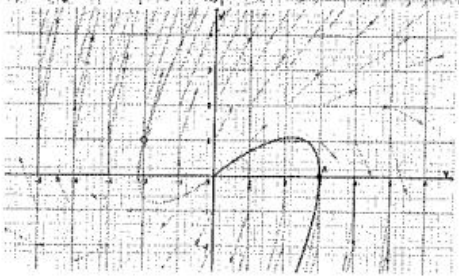
0/2

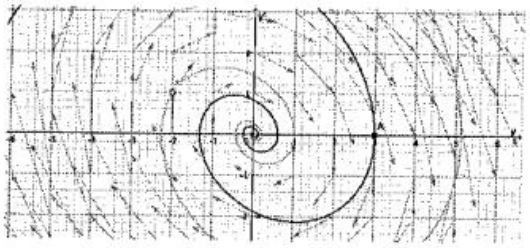
☐ 

☐ 

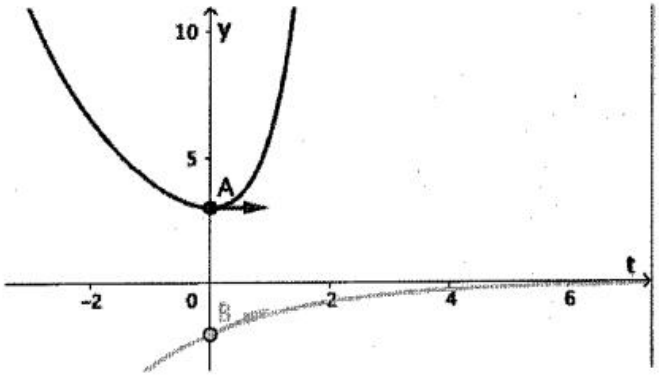
● 

☒ 

☐ 

☐ 

Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :



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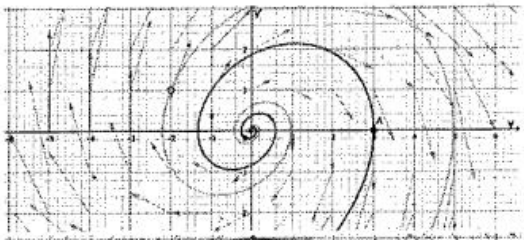
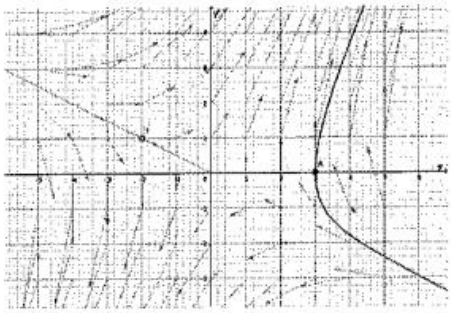
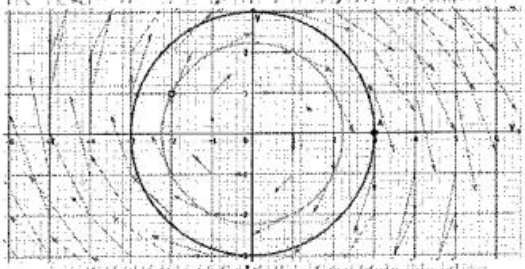
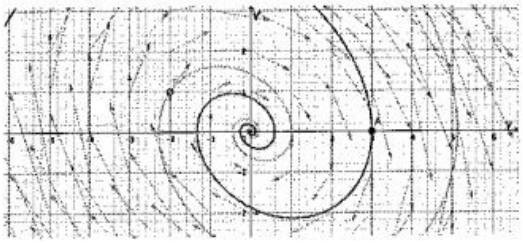
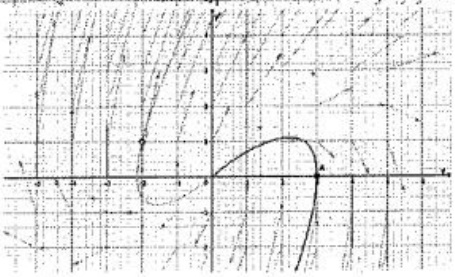
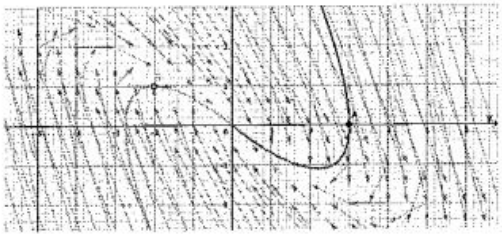
☐ 

☒ 

☐ 

☐ 

☐ 

■ 

ZOUDE ANTOINE
Note: 16/20 (score total : 8/10)

+101/1/27+

Veillez à bien noircir les cases.

Codez votre numéro d'étudiant ci-contre ⟶
et écrivez votre nom et prénom ci-dessous :

Nom et prénom :
ZOUDE Antoine

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Fdm2 – Printemps 2019

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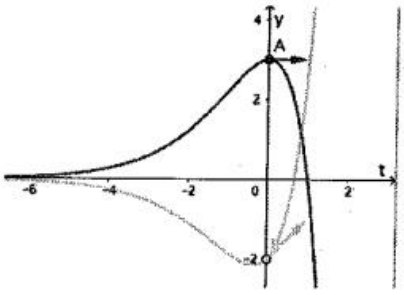
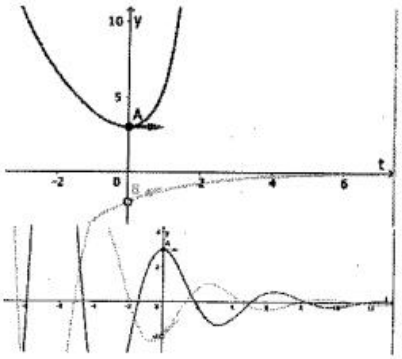
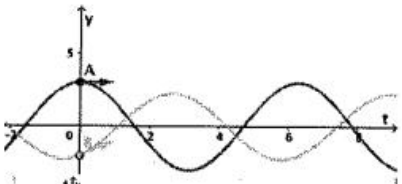
☐ 

☐ 

☐ 

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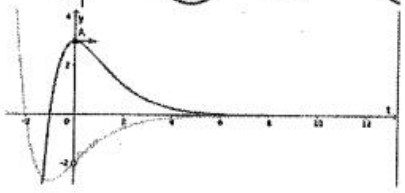
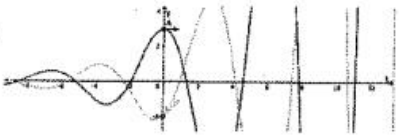
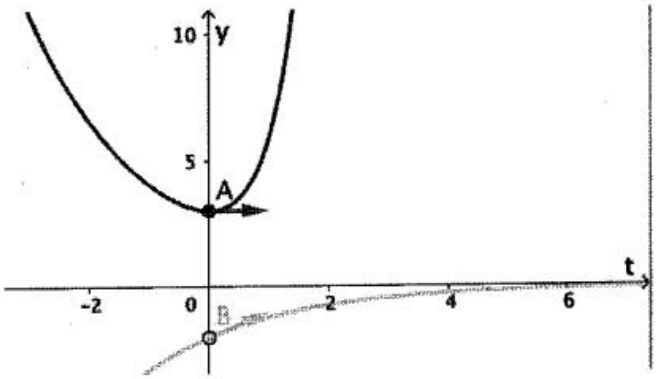
☐ 

☐ 

2/2

Question 2 Associer les graphes suivants à l'équation différentielle que ces fonctions satisfont :



☐ $y'' - 2y' + y = 0$ ☐ $y'' + y = 0$ ☐ $y'' + 2y' + y = 0$ ☒ $y'' - \frac{3}{2}y' - y = 0$

☐ $y'' + \frac{1}{2}y' + y = 0$ ☐ $y'' - \frac{1}{2}y' + y = 0$

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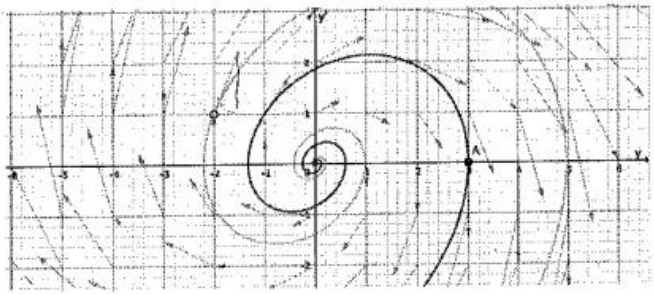
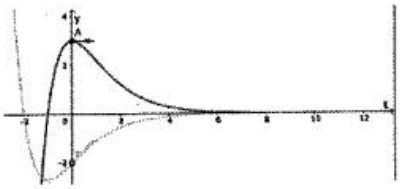
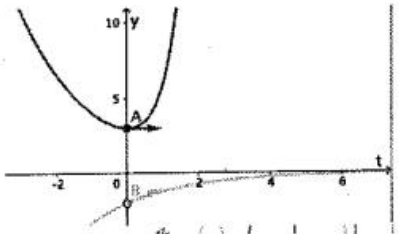
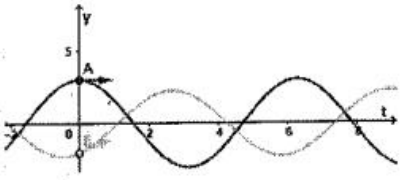
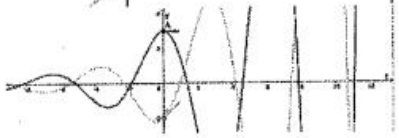
Question 3 Associer le portrait de phase suivant au graphe de la fonction correspondante :

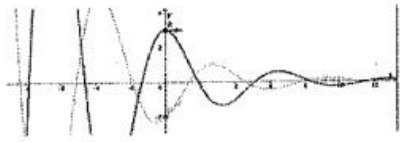


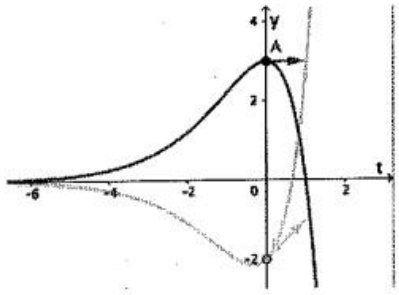
☐ 

☐ 

☐ 

☒ 

☐ 

☐ 

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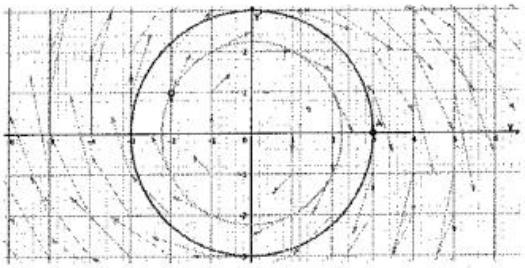
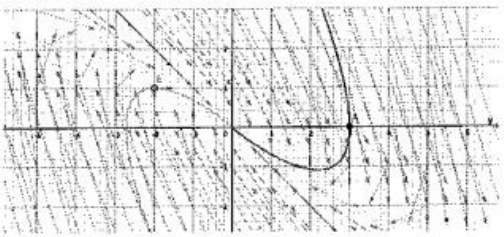
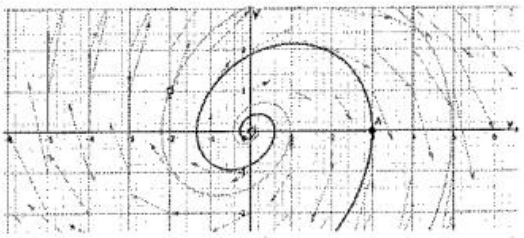
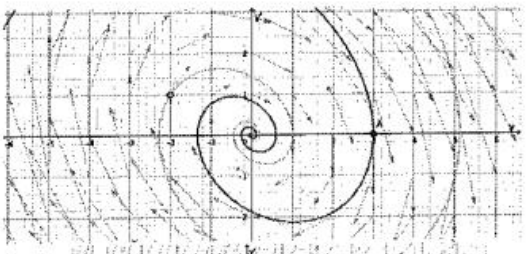
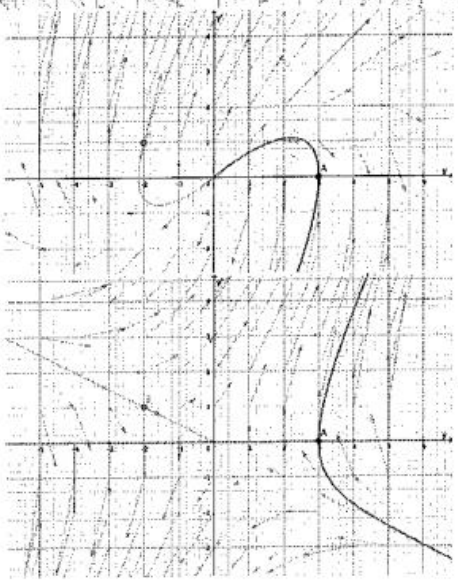
Question 4 Trouver parmi les portraits de phase la solution à l'équation différentielle suivante : $y'' + 2y' + y = 0$.

☐ 

☒ 

☐ 

☒ 

☐ 

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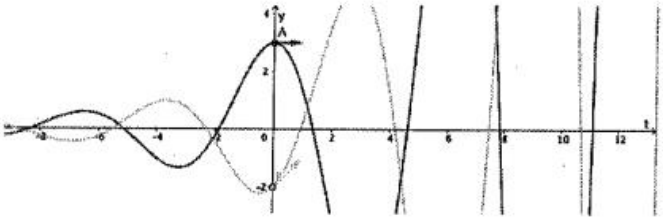
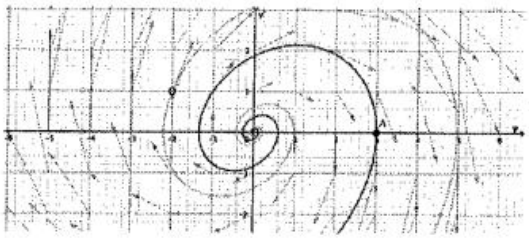
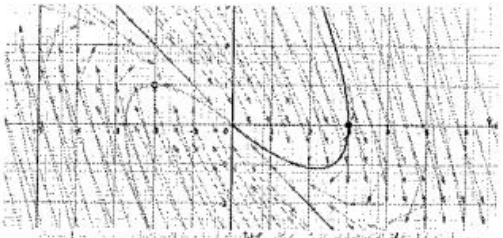
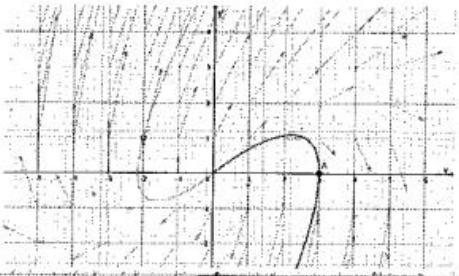
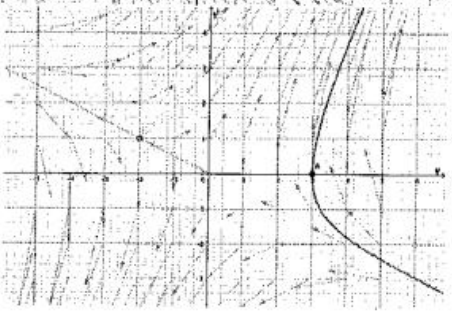
Question 5 Associer le graphe suivant au portrait de phase de la fonction correspondante :

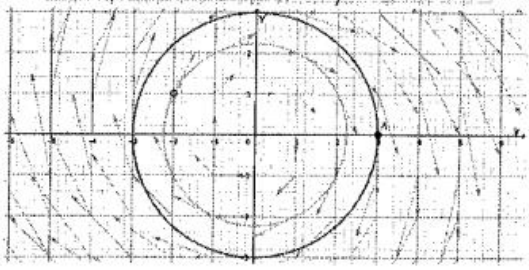


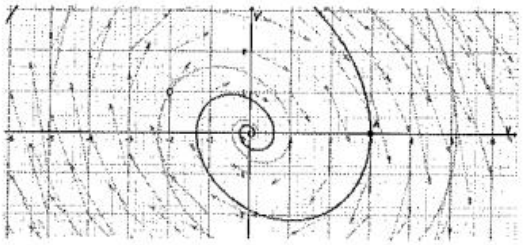
☒ 

☐ 

☐ 

☐ 

☐ 

☐ 

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