En effet

1) $\vec{D} = \{(x,y) \in \mathbb{R}^2 , \ 2x+y=0\}$ e.v

$\phi : D \times D \to \vec{D} \quad , \quad \phi((x_1,y_1),(x_2,y_2)) = (x_2-x_1, y_2-y_1)$

2) $\vec{S} = \left\{ (x_1,x_2,x_3) \in \mathbb{R}^3 \ \middle| \ \begin{array}{l} x_1+x_2+x_3=0 \\ x_1-x_2+2x_3=0 \end{array} \right\}$ e.v

$\phi : S \times S \to \vec{S} \quad , \quad \phi((x_1,x_2,x_3),(z_1,z_2,z_3)) = (z_1-x_1, z_2-x_2, z_3-x_3)$

3) $\vec{P} = \{ P(X) \in \mathbb{R}_3[X] \mid P(1)=0\}$ e.v

$\phi : P \times P \to \vec{P} \quad , \quad \phi(Q,R) = R-Q$

4) $\vec{S} = \{(u_n)_{n\in\mathbb{N}} \mid \forall n \in \mathbb{N} \quad u_{n+1} = a u_n\}$. e.v

$\phi : S \times S \to \vec{S} \quad , \quad \phi((u_n),(v_n)) = (v_n - u_n)$

5) $\vec{E} = \{ f \in C^\infty(\mathbb{R}) ,\ f$ solution de l'équation $y''-5y'+6y=0 \}$ e.v

$\phi : E \times E \to \vec{E} \quad , \quad \phi(f_1,f_2) = f_2 - f_1$