Analyse
Fonctions vectorielles

Question 1/6

$$A \in \mathcal{M}_n(\mathbb{K})$$
$$\frac{\mathrm{d}}{\mathrm{d}t}(\exp(tA))$$

Réponse 1/6

$$A\exp(tA) = \exp(tA)A$$

Question 2/6

$$\| f \|'$$

Réponse 2/6

$$\frac{\langle f, f' \rangle}{\| f \|}$$

Question 3/6

$$u \in \mathcal{L}(E)$$
$$\frac{\mathrm{d}}{\mathrm{d}t}(\exp(tu))$$

Réponse 3/6

$$u \circ \exp(tu) = \exp(tu) \circ u$$

Question 4/6

$$u \in \mathcal{L}(E, F)$$
$$(u \circ f)'$$

Réponse 4/6

$$u \circ (f')$$

Question 5/6

$$u \in \mathcal{L}(E, F)$$

$$u\left(\int_a^b (f(t))\,\mathrm{d}t\right)$$

Réponse 5/6

$$\int_a^b (u(f(t))) \, \mathrm{d}t$$

Question 6/6

$$m : E_1 \times \cdots \times E_p \to F \text{ multilinéaire}$$
$$m(f_1, \cdots, f_p)'$$

Réponse 6/6

$$\sum_{k=1}^{p}(m(f_1, \cdots, f_{k-1}, f'_k, f_{k+1}, \cdots, f_p))$$