

Q8 Soient $f, g : \mathbb{R}^n \rightarrow \mathbb{R}$ deux fonctions dérivables sur $\mathbb{R}^n$, $n \geq 1$

$$A \quad \nabla(f+g)(\bar{x}) = \nabla f(\bar{x}) + \nabla g(\bar{x}) \quad \forall \bar{x} \in \mathbb{R}^n$$

$$B \quad \langle \nabla f(\bar{x}), \nabla g(\bar{x}) \rangle = \nabla(f \cdot g)(\bar{x}) \quad \forall \bar{x} \in \mathbb{R}^n$$

$$C \quad J_{(\nabla f)^T}(2\bar{x}) = 2 J_{(\nabla f)^T}(\bar{x}) \quad \forall \bar{x} \in \mathbb{R}^n$$

$$D \quad \nabla f(\bar{x} + \bar{y}) = \nabla f(\bar{x}) + \nabla f(\bar{y}) \quad \forall \bar{x}, \bar{y} \in \mathbb{R}^n$$