

Corrections Savoir Fd. 3

Corrigé Exercice 8

$$1) f'(x) = 4x + 5$$

$$h'(x) = 8x$$

$$j'(x) = 6x^2 - \frac{1}{2}$$

$$2) m'(x) = -\frac{2}{3x^2}$$

$$p'(x) = 4x + \frac{5}{x^2}$$

$$g'(x) = 5 - 2x$$

$$i'(x) = -9x^2 + 2x - 7$$

$$k'(x) = \frac{x^2}{2} - 5x$$

$$n'(x) = \frac{-1}{12\sqrt{x}}$$

$$q'(x) = \frac{4}{\sqrt{x}} - 3$$

Pour préparer le contrôle...

$$1) f'(x) = 4x - 5$$

$$g'(x) = 12x^2 - 1$$

$$h'(x) = x^3 - 2x^2 + 14x$$

$$2) j'(x) = \frac{1}{3\sqrt{x}} + \frac{2}{3x^2}$$

$$k'(x) = -\frac{3}{2x^2} - \frac{3}{2}$$

Corrigé Exercice 9

$$1) \phi'(x) = 4e^x \quad h'(x) = \frac{1}{x} - \frac{1}{x^2} = \frac{x-1}{x^2}$$

$$j'(t) = -\frac{2}{t} \quad g'(x) = 3x^2 - 5e^x$$

$$m'(x) = 1 - \frac{1}{x} = \frac{x-1}{x} \quad p'(x) = \frac{3}{4} + \frac{1}{4x} = \frac{3x+1}{4x}$$

$$i'(x) = e^x + 5x^4 \quad k'(a) = -e^a$$

$$2) a. f'(x) = 6x - 21 - \frac{12}{x}$$

$$b. f'(x) = 6x - 21 - \frac{12}{x} = \frac{6x^2 - 21x - 12}{x} \\ = \frac{3(2x^2 - 7x - 4)}{x} \quad CQFD$$

Pour préparer le contrôle...

$$1) k'(x) = 5e^x \quad C'(x) = \frac{1}{x}$$

$$F'(t) = e^t + 2 \quad n'(x) = \frac{1}{3x}$$

$$d'(x) = 2e^x + \frac{1}{x} \quad g'(x) = 2x - \frac{3}{x} = \frac{2x^2 - 3}{x}$$

$$l'(n) = \frac{3}{2}e^n - \frac{5}{2} \times 2n \quad \omega'(x) = \frac{-2}{x^2} - \frac{1}{2x} \\ = \frac{3}{2}e^n - 5n \quad = \frac{-4-x}{2x^2}$$

$$2) a. g'(x) = 1 + \frac{2}{x} + \frac{1}{2x^2}$$

$$b. g'(x) = 1 + \frac{2}{x} + \frac{1}{2x^2} = \frac{2x^2 + 2 \times 2x + 1}{2x^2} \\ = \frac{2x^2 + 4x + 1}{2x^2} \quad CQFD$$