

PRIMITIVES

Série 1

Automatismes en BTS – IREM de Clermont-Ferrand

Donner une primitive des
fonctions données sur
l'intervalle I précisé.

Question 1/6

$$\begin{aligned} \text{a) } f(x) &= 4x \\ I &= \mathbb{R} \end{aligned}$$

$$\begin{aligned} \text{b) } g(x) &= 3x \\ I &= \mathbb{R} \end{aligned}$$

Question 2/6

$$\begin{aligned} \text{a) } f(x) &= 3x^2 \\ I &= \mathbb{R} \end{aligned}$$

$$\begin{aligned} \text{b) } g(x) &= 12x^3 \\ I &= \mathbb{R} \end{aligned}$$

Question 3/6

$$a) f(x) = \frac{x^2}{2}$$
$$I = \mathbb{R}$$

$$b) g(x) = 3x^3$$
$$I = \mathbb{R}$$

Question 4/6

$$\text{a) } f(x) = \frac{1}{x}$$
$$I =]0; +\infty[$$

$$\text{b) } g(x) = 6x$$
$$I = \mathbb{R}$$

Question 5/6

$$\text{a) } f(x) = \frac{3}{x}$$
$$I =]0; +\infty[$$

$$\text{b) } g(x) = 3e^x$$
$$I = \mathbb{R}$$

Question 6/6

$$\begin{aligned} \text{a) } f(x) &= 2\cos(x) \\ I &= \mathbb{R} \end{aligned}$$

$$\begin{aligned} \text{b) } g(x) &= 5\sin(x) \\ I &= \mathbb{R} \end{aligned}$$

CORRIGÉS

Question 1/6

$$\begin{aligned} \text{a) } f(x) &= 4x \\ I &= \mathbb{R} \end{aligned}$$

$$\begin{aligned} \text{b) } g(x) &= 3x \\ I &= \mathbb{R} \end{aligned}$$

Question 1/6

$$\begin{aligned} \text{a) } f(x) &= 4x \\ I &= \mathbb{R} \end{aligned}$$

$$F(x) = 2x^2$$

$$\begin{aligned} \text{b) } g(x) &= 3x \\ I &= \mathbb{R} \end{aligned}$$

$$G(x) = \frac{3x^2}{2}$$

Question 2/6

$$\text{a) } f(x) = 3x^2$$
$$I = \mathbb{R}$$

$$\text{b) } g(x) = 12x^3$$
$$I = \mathbb{R}$$

Question 2/6

$$\text{a) } f(x) = 3x^2$$
$$I = \mathbb{R}$$

$$\text{b) } g(x) = 12x^3$$
$$I = \mathbb{R}$$

$$F(x) = x^3$$

$$G(x) = 3x^4$$

Question 3/6

$$\text{a) } f(x) = \frac{x^2}{2}$$
$$I = \mathbb{R}$$

$$\text{b) } g(x) = 3x^3$$
$$I = \mathbb{R}$$

Question 3/6

$$\text{a) } f(x) = \frac{x^2}{2}$$
$$I = \mathbb{R}$$

$$F(x) = \frac{x^3}{6}$$

$$\text{b) } g(x) = 3x^3$$
$$I = \mathbb{R}$$

$$G(x) = \frac{3x^4}{4}$$

Question 4/6

$$\text{a) } f(x) = \frac{1}{x}$$
$$I =]0; +\infty[$$

$$\text{b) } g(x) = 6x$$
$$I = \mathbb{R}$$

Question 4/6

$$a) \quad f(x) = \frac{1}{x}$$
$$I =]0; +\infty[$$

$$F(x) = \ln(x)$$

$$b) \quad g(x) = 6x$$
$$I = \mathbb{R}$$

$$G(x) = 3x^2$$

Question 5/6

$$a) f(x) = \frac{3}{x}$$
$$I =]0; +\infty[$$

$$b) g(x) = 3e^x$$
$$I = \mathbb{R}$$

Question 5/6

$$a) f(x) = \frac{3}{x}$$
$$I =]0; +\infty[$$

$$F(x) = 3 \ln(x)$$

$$b) g(x) = 3e^x$$
$$I = \mathbb{R}$$

$$G(x) = 3e^x$$

Question 6/6

$$\begin{aligned} \text{a) } f(x) &= 2\cos(x) \\ I &= \mathbb{R} \end{aligned}$$

$$\begin{aligned} \text{b) } g(x) &= 5\sin(x) \\ I &= \mathbb{R} \end{aligned}$$

Question 6/6

$$\begin{aligned} \text{a) } f(x) &= 2\cos(x) \\ I &= \mathbb{R} \end{aligned}$$

$$\begin{aligned} \text{b) } g(x) &= 5\sin(x) \\ I &= \mathbb{R} \end{aligned}$$

$$F(x) = 2 \sin(x)$$

$$G(x) = -5 \cos(x)$$