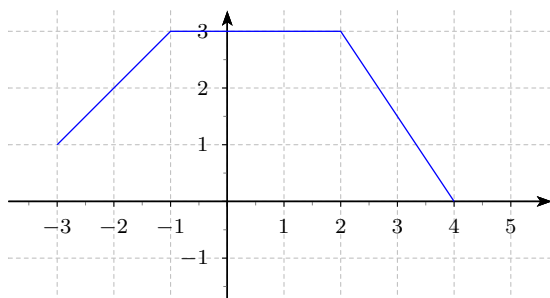
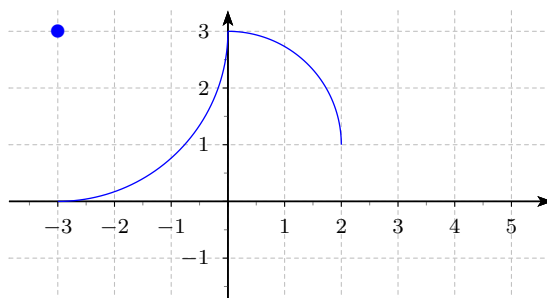


**EXERCICE 1** Calculer  $\int_{-3}^4 f(t)dt$  dans chacun des cas suivants :

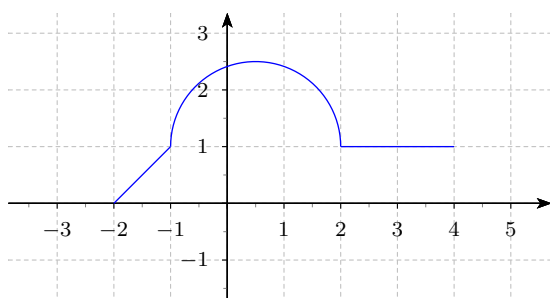
a)



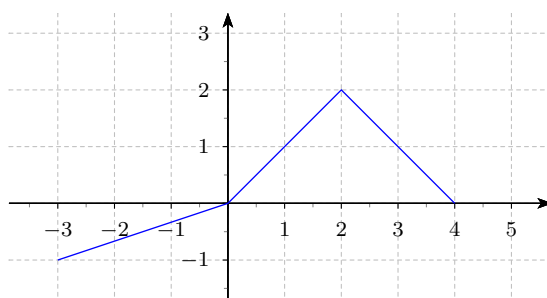
c)



b)



d)



**EXERCICE 2** Calculer les dérivées des fonctions suivantes.

1)  $f(x) = x^3 + 4x + 2$

2)  $f(x) = (3x + 1)^2$

3)  $f(x) = (-4 + x)^3$

4)  $f(x) = \frac{1}{2x + 1}$

5)  $f(x) = \frac{3}{5x^2 - 1}$

6)  $f(x) = \sqrt{7x + 1}$

7)  $f(x) = 2\sqrt{5 - 2x}$

8)  $f(x) = e^{2x+2}$

9)  $f(x) = 7e^{3x-2}$

10)  $f(x) = \ln(2x + 2)$

11)  $f(x) = \ln(3x - 2)$

12)  $f(x) = \cos(4x + 1)$

13)  $f(x) = 5 \sin(4x + 1)$

14)  $f(x) = x \times e^x$

**EXERCICE 3** Calculer des primitives des fonctions suivantes.

1)  $f(x) = 4x + 2$

2)  $f(x) = 5x^3$

3)  $f(x) = (x + 1)(x - 1)$

4)  $f(x) = x^3 + 4x + 2$

5)  $f(x) = (3x + 1)^2$

6)  $f(x) = (4 - x)^3$

7)  $f(x) = \frac{1}{2x + 1}$

8)  $f(x) = \frac{3x}{5x^2 + 1}$

9)  $f(x) = \sqrt{x}$

10)  $f(x) = e^{2x+2}$

11)  $f(x) = 7e^{-3x}$

12)  $f(x) = \cos(4x + 1)$

13)  $f(x) = 5 \sin(4x + 1)$

14)  $f(x) = x \times e^x$