

EXERCICE 1

1. $\int_0^1 (3x^2 + 2x + 1) dx$
2. $\int_1^2 (5x^4 - 3x^2) dx$
3. $\int_1^e \left(\frac{1}{x} + 4x^3 \right) dx$
4. $\int_0^1 (7e^x - 2) dx$
5. $\int_0^\pi (6 \cos x + 3x) dx$

6. $\int_0^1 (4 \sin x - x^2) dx$
7. $\int_1^2 \left(2x + \frac{3}{x^2} \right) dx$
8. $\int_0^{\ln 2} (8 - 5e^x) dx$
9. $\int_0^{\pi/2} (x^3 + 2 \cos x) dx$
10. $\int_1^3 \left(\frac{5}{x} - 4 \sin x \right) dx$

EXERCICE 2

1. $\int_0^1 (2x)(x^2 + 1)^3 dx$
2. $\int_0^{\pi/2} \cos x (\sin x)^4 dx$
3. $\int_1^2 \frac{2x}{x^2 + 1} dx$
4. $\int_0^1 e^{x^2} \cdot 2x dx$
5. $\int_0^\pi \sin x (1 - \cos x)^2 dx$

1. $\int_0^1 (2x + 1)(x + 3) dx$
2. $\int_{-1}^2 (x - 2)(3x + 4) dx$
3. $\int_0^2 (4x - 1)(2x + 5) dx$
4. $\int_1^3 (x + 1)(x - 1) dx$
5. $\int_0^1 (3x + 2)(5x - 1) dx$

EXERCICE 3

1. $\int_0^1 \frac{2x + 1}{x + 1} dx$
2. $\int_1^2 \frac{3x - 1}{x + 2} dx$
3. $\int_0^2 \frac{4x + 5}{2x + 1} dx$
4. $\int_1^3 \frac{x + 3}{x - 1} dx$
5. $\int_0^1 \frac{5x - 2}{3x + 1} dx$