



Atividade

Calcule a integral de:

$$1) \int \frac{1}{x^3} dx$$

$$2) \int 5u^{3/2} du$$

$$3) \int \frac{2}{\sqrt[3]{x}} dx$$

$$4) \int 6t^2 \sqrt[3]{t} dt$$

$$5) \int (4x^3 + x^2) dx$$

$$6) \int y^3 (2y^2 - 3) dy$$

$$7) \int (3 - 2t + t^2) dt$$

$$8) \int (8x^4 + 4x^3 - 6x^2 - 4x + 5) dx$$

$$9) \int \sqrt{x} (x + 1) dx$$

$$10) \int (x^{3/2} - x) dx$$

$$11) \int \left(\frac{2}{x^3} + \frac{3}{x^2} + 5 \right) dx$$

$$12) \int \frac{x^2 + 4x - 4}{\sqrt{x}} dx$$

Respostas:

$$1) -\frac{1}{2x^2} + C$$

$$2) 2u^{5/2} + C$$

$$3) 3x^{2/3} + C$$

$$4) \frac{9}{5} t^{10/3} + C$$

$$5) x^4 + \frac{1}{3} x^3 + C$$

$$6) \frac{1}{3} y^6 - \frac{3}{4} y^4 + C$$

$$7) 3t - t^2 + \frac{1}{3} t^3 + C$$

$$8) \frac{8}{5} x^5 + x^4 - 2x^3 - 2x^2 + 5x + C$$

$$9) \frac{2}{5} x^{5/2} + \frac{2}{3} x^{3/2} + C$$

$$10) \frac{2}{5} x^{5/2} - \frac{1}{2} x^2 + C$$

$$11) -\frac{1}{x^2} - \frac{3}{x} + 5x + C$$

$$12) \frac{2}{5} x^{5/2} + \frac{8}{3} x^{3/2} - 8x^{1/2} + C$$