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Nombre del trabajo: problemas

Materia: Matemáticas Aplicada

PASIÓN POR EDUCAR

Grado: 6° cuatrimestre

Grupo: Recursos Humanos

Problemas

$$\int x^{1/2} dx = \frac{x^{1/2+1}}{1/2+1} = \frac{x^{3/2}}{3/2} = \frac{2x^{3/2}}{3} = \frac{2\sqrt{x^3}}{3}$$
$$\frac{2x\sqrt{x} + C}{3}$$

$$\int (x^{-3/2} + x^{1/3} + 4) dx$$

$$\int x^{-3/2} dx + \int x^{1/3} dx + \int 4 dx =$$

$$\frac{x^{-3/2+1}}{-3/2+1} + \frac{x^{1/3+1}}{1/3+1} + 4x$$

$$\frac{x^{-1/2}}{-1/2} + \frac{x^{4/3}}{4/3} + 4x$$

$$\frac{-2}{x^{1/2}} + \frac{3x^{4/3}}{4} + 4x$$

$$\frac{-2}{\sqrt{x}} + \frac{3x^{4/3}}{4}$$

$$\frac{-2}{\sqrt{x}} + \frac{3\sqrt[3]{x^4}}{4} + 4x = \frac{-2}{\sqrt{x}} + \frac{3x\sqrt[3]{x}}{4} + 4x + C$$

$$\int \frac{dx}{x} = \int x^{-1} dx = \underline{\ln|x| + C}$$

$$\int \left(\frac{1}{x^2} + \frac{1}{x^3} \right) dx =$$

$$\int \frac{1}{x^2} dx + \int \frac{1}{x^3} dx = \frac{1}{(2-1)x^{-1}} + \frac{1}{(3-1)x^{3-1}}$$

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

$$\int (2x^2 + \sqrt{x}) dx =$$

$$\int 2x^2 dx + \int x^{1/2} dx = 2 \int x^2 dx + \int x^{1/2} dx$$

$$\frac{2x^3}{3} + \frac{x^{3/2}}{3/2} = \frac{2x^3}{3} + \frac{2x^{3/2}}{3} =$$

$$\frac{2x^3}{3} + \frac{2x\sqrt{x}}{3}$$

$$\underline{\underline{\frac{2x^3 + 2x\sqrt{x}}{3} + C}}$$