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Nombre del trabajo: ejercicios

Materia: mate aplicado

Grado: 6to cuatrimestre

Grupo: BRH

PASIÓN POR EDUCAR

Comitán de Domínguez Chiapas a 21 mayo de 2022.

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

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

$$3 = \int \frac{5}{\sqrt{x}} dx = \int \frac{5 dx}{x^{1/2}} = \int 5x^{1/2} dx = \frac{5x^{-1/2+1}}{-1/2+1} = \frac{5x^{1/2}}{1/2} =$$

$$10\sqrt{x} + C$$

$$4 = \int (2x^2 + 4x + 2) dx = \int 2x^2 dx + \int 4x dx + \int 2 dx + C$$

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

19-may-2022

$$5 = \int 8\sqrt{x} dx = 8 \int x^{1/2} dx + C = \frac{8x^{1/2+1}}{\frac{1}{2}+1} + C = \frac{8x^{3/2}}{\frac{3}{2}} + C = \frac{16x^{3/2}}{3} + C$$

$$6 = \int \frac{2}{\sqrt[3]{x^2}} dx = \frac{2 dx}{x^{2/3}} = \int 2x^{-2/3} dx = \frac{2x^{-2/3+1}}{-2/3+1} = \frac{2x^{1/3}}{1/3} + C = \frac{6x^{1/3}}{1} + C$$

$$\frac{6x^{1/3}}{1} + C$$

$$7 = \int 4x^2 dx = \frac{4x^{2+1}}{2+1} + C = \frac{4x^3}{3} + C$$

$$8 = \int \frac{6}{\sqrt{x}} dx = \int \frac{6 dx}{x^{1/2}} = \int 6x^{-1/2} dx = \frac{6x^{-1/2+1}}{-1/2+1} = \frac{6x^{1/2}}{1/2} = 12\sqrt{x} + C$$

$$12\sqrt{x} + C$$

$$90 \int 4(2x^3 + 2x) dx \quad 9x^3 + 9x$$

$$\frac{9x^{3+1}}{3+1} \quad \frac{9x^4}{4} \quad \frac{4x^4 + 9x}{2 \cdot 4 + 9 + C} = \frac{2x^4}{2} = 2x^4 + 9 + C$$

$$100 \int \sqrt{x^5} dx = \frac{2}{7} \sqrt{x^7} + C \quad x^{5/2} dx \quad \frac{x^{5/2+1}}{5/2+1} = \frac{x^{7/2}}{7/2} = \frac{2x^{7/2}}{7}$$