

UDS MI UNIVERSIDAD

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Asignatura: Matemáticas Aplicadas

Grado: 6to cuatrimestre

Grupo: BRH

Actividad: Unidad 3

Fecha: 8-junio-2023

Lugar: Comitán, Chiapas

Actividad Plataforma

$$\int 9x^2 + 6x + 11 dx$$

$$\int \frac{9x^3}{3} + \frac{6x^2}{2} + 11x dx$$

$$\int 3x^3 + 3x^2 + 11x + c dx$$

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

$$\int x^2 + 10x + 25 dx$$

$$\int \frac{x^3}{3} + \frac{10x^2}{2} + 25x + c dx$$

$$\int \frac{x^3}{3} + 5x^2 + 25x + c dx$$

$$\int (2x + 10)^3 dx$$

$$\int 8x^3 + 120x^2 + 600x + 1000 dx$$

$$\int \frac{8x^4}{4} + \frac{120x^3}{3} + \frac{600x^2}{2} + 1000x + c$$

$$\int 2x^4 + 60x^3 + 300x^2 + 1000x + c$$

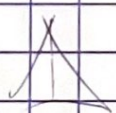
$$\int 2x(x^2 + 2)^2 dx$$

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

$$\int 2x^5 + 6x^3 + 8x dx$$

$$\int \frac{2x^6}{6} + \frac{6x^4}{4} + \frac{8x^2}{2} + c dx$$

$$\int \frac{x^6}{3} + \frac{3x^4}{2} + 4x^2 + c dx$$



$$b = \sqrt{c^2 - a^2}$$

$$b = \sqrt{6^2 - 3^2}$$

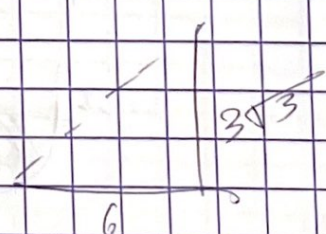
$$b = \sqrt{36 - 9}$$

$$b = \sqrt{27} = \sqrt{3 \cdot 9} \Rightarrow 3\sqrt{3}$$

$$m = \frac{a}{c}$$

$$m = \frac{3}{6}$$

$$m = \frac{1}{2}$$



$$f(x) = 3\sqrt{3}x \rightarrow \int_0^6 \frac{3\sqrt{3}x}{6} dx$$

$$\int_0^6 \frac{3\sqrt{3}x}{6} + c dx \Rightarrow \int_0^6 \frac{\sqrt{3}x^2}{2} dx$$

$$\int_0^6 \frac{\sqrt{3}(x^3)}{12} - \frac{16}{12} \frac{3\sqrt{3}(6)^2}{12} = \frac{7\sqrt{3}(36)}{12} - \frac{16}{12}$$

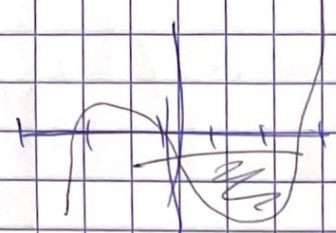
$$f(x) = 3\sqrt{3}(3) \quad f(x) = 9\sqrt{3} \Rightarrow 15.59$$

Integral definida gráfica

$$\int_0^2 9x^2 + 6x - 11 dx$$

$$\int_0^2 \frac{9x^3}{3} + \frac{6x^2}{2} - \frac{11}{1} + c dx$$

$$\int_0^2 3x^3 + 3x^2 - 11/x + c dx$$



Integral definida gráfica

$$\int_{-3}^0 15x^4 - 12x^3 + 6x^2 + 4x dx$$

4º grado → 5º grado

Derivada ↓

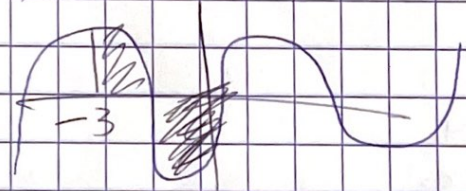
$$f(x) = x^2 \text{ (2º grado)}$$

1º grado

Integral ↑

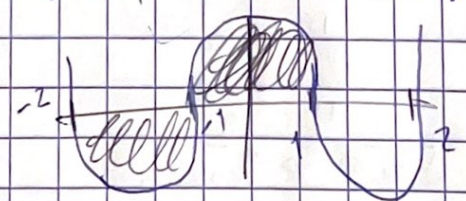
$$x^4 \text{ (4º grado)}$$

$$x^5 \text{ (5º grado)}$$



$$\int_{-2}^1 (2x + 10)^3 dx$$

3º grado → 4º grado



$$\int_0^{\infty} 2x \cdot x^2 + 21^2 dx$$

$$\int_{-1}^1 (x+5)^2 dx$$