

Nombre del profesor:

Juan José Ojeda.

Nombre de la alumna:

Aurora Isabel Gómez Santis

Materia:

Matemáticas aplicadas.

Grupo:

“A”

Bachillerato:

Técnico en enfermería.

$$\int (1-x) \cdot \sqrt{x} \, dx$$

$$\int (1-x) \cdot x^{1/2} \, dx$$

$$\int [x^{1/2} - x^{3/2}] \, dx$$

$$\int x^{1/2} \, dx - \int x^{3/2} \, dx$$

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

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

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

$$\frac{2}{2} + \frac{3}{2} = \frac{5}{2}$$

$$\frac{x^{5/2}}{5/2}$$

$$\int (1-x) \cdot \sqrt{x} \, dx$$

$$\int (1-x) \cdot x^{1/2} \, dx$$

$$\int [x^{1/2} - x^{3/2}] \, dx$$

$$\int x^{1/2} \, dx - \int x^{3/2} \, dx$$

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

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

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

$$\frac{2}{2} + \frac{3}{2} = \frac{5}{2}$$

$$\frac{x^{5/2}}{5/2}$$

$$\int \frac{(3x+4)^2}{(3x+4)(3x+4)} dx$$

$$\frac{9x^2 + 12x + 16}{9x^2 + 24x + 16} dx$$

$$\int (9x^2 + 24x + 16) dx$$

$$\int 9x^2 dx + \int 24x dx + \int 16 dx$$

$$9 \int x^2 dx + 24 \int x dx + 16 \int dx$$

$$\frac{9x^3}{3} + \frac{24x^2}{2} + 16x + C$$

$$3x^3 + 12x^2 + 16x + C$$

$$\int \frac{x^3 + 5x^2 - 4}{x^3} dx = \int \frac{x^3}{x^3} + \frac{5x^2}{x^3} - \frac{4}{x^3} dx$$

$$\int dx + \int \frac{5}{x} dx - \int \frac{4}{x^3} dx = \int dx + 5 \int \frac{dx}{x} - 4 \int \frac{dx}{x^3}$$

$$x + 5 \ln|x| - \frac{4x^{-2}}{-2} + C$$

$$\downarrow \quad \downarrow \quad + 2x^{-2} + C$$

$$x + 5 \ln|x| + \frac{2}{x^2} + C$$

22/mayo/22

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

$$(3x+4)(3x+4)$$

$$9x^2 + 12x + 12x + 16$$

$$9x^2 + 24x + 16$$

$$\frac{d}{dx}(x) = 1$$

$$\int 1 dx = x$$

$$\int (9x^2 + 24x + 16) dx$$

$$\int 9x^2 dx + \int 24x dx + \int 16 dx$$

$$9 \int x^2 dx + 24 \int x dx + 16 \int dx$$

$$\frac{9x^3}{3} + \frac{24x^2}{2} + 16x + C$$

$$3x^3 + 12x^2 + 16x + C$$

$$\int \frac{x^3 + 5x^2 - 4}{x^3} dx = \left(\frac{x^3}{x^3} + \frac{5x^2}{x^3} - \frac{4}{x^3} \right) dx$$

$$\int dx + \int \frac{5}{x} dx - \int \frac{4}{x^3} dx = \int dx + 5 \int \frac{dx}{x} - 4 \int \frac{dx}{x^3}$$

$$x + 5 \ln|x| - \frac{4x^{-2}}{-2} + C$$

$$x + 5 \ln|x| + \frac{2}{x^2} + C$$

$$4 \int x^{-3} dx$$
$$\frac{x^{-2}}{-2}$$

desarrollando la función: 29 mayo/22

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

$$\int 2 dx - \int 3x dx + \int x^2 dx$$

$$2 \int dx - 3 \int x dx + \int x^2 dx$$

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

Página del ejercicio 29 mayo/22

$$\int (\sqrt{x} - \frac{1}{2}x + \frac{2}{\sqrt{x}}) dx$$

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

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

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

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

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

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

$$a^2 \int dx + 2a \int x dx + \int x^2 dx$$

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

$$\boxed{a^2 x + ax^2 + \frac{x^3}{3} + C}$$

05 junio/22

$$\int (x-2)^{2/5} dx$$

$$\frac{2}{3} + \frac{3}{3} = \frac{5}{3}$$

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

$$\frac{(x-2)^{5/3}}{5/3} = \boxed{\frac{3}{5} (x-2)^{5/3} + C}$$

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

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

$$\int \frac{dx}{\sqrt{x+3}}$$

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

$$-\frac{1}{2} + \frac{2}{2} = \frac{1}{2}$$

$$= 2(x+3)^{1/2} + C$$

$$\boxed{= 2\sqrt{x+3} + C}$$