

TAHER5

Actividad:

1. Halla la derivada de las siguientes funciones

a. $F(x) = 4x - 2$

$$0 = 4x - 2$$

$$-4x = -2$$

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

b. $F(x) = 32x$

$$0 = 32x$$

$$32x = 0$$

c. $F(x) = 506432$

$$y = 0x + 506432$$

$$y = 0x + 506432, m = 0$$

$$m = 0, b = 506432$$

d. $F(x) = \frac{1}{2}x + \frac{4}{3}$

$$0 = \frac{1}{2}x + \frac{4}{3}$$

$$0 = 3x + 8$$

$$x = -\frac{8}{3}$$

e. $F(x) = 56x^2 + 3x - 102$

$$F(x) = 56 \left(x^2 + \frac{3}{56}x \right) - 102$$

$$F(x) + 56 \left(x^2 + \frac{3}{56}x + \frac{9}{12544} \right) - 102$$

$$F(x) + \frac{9}{224} = 56 \left(x + \frac{3}{112} \right)^2 - 102$$

$$F(x) = 56 \left(x + \frac{3}{112} \right)^2 - 102 - \frac{9}{224}$$

$$F(x) = 56 \left(x + \frac{3}{112} \right)^2 - \frac{22857}{224}$$

$$F. F(x) = 10x^5 - 32x^4 - 21x^3 + 22x^2 - 7x + 7$$

$$F(0) = 10 \times 0^5 - 32 \times 0^4 - 21 \times 0^3 + 22 \times 0^2 - 7 \times 0 + 7$$

$$F(0) = 10 \times 0 - 32 \times 0 - 21 \times 0 + 22 \times 0 - 0 + 7$$

$$F(0) = 7$$

$$G. F(x) = -82x^6 - 75x^4 - 11x^3 + 22x^2 - x$$

$$F(0) = -82 \times 0^6 - 75 \times 0^4 - 11 \times 0^3 + 22 \times 0^2 - 0$$

$$F(0) = -82 \times 0 - 75 \times 0 - 11 \times 0 + 22 \times 0 - 0$$

$$F(0) = 0 - 75 \times 0 - 11 \times 0 + 0$$

$$H. f(x) = -x^4 + x^3 + 200x^2 - 13$$

$$f(x) = \frac{d}{dx} (-x^4 + x^3 + 200x^2 - 13)$$

$$f(x) = -4x^3 + 3x^2 + 400x - 0$$

$$f'(x) = -4x^3 + 3x^2 + 400x$$