



A derivar se a dicho

Biomatematicas

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Grado: 1

Grupo: C

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1. Ejercicios

1. x^3
2. x^2
3. x^8
4. x^n
5. x^{20}

- $F(x) = x^3$
 $F'(x) = 3x^2$
- $F(x) = x^2$
 $F'(x) = 2x$
- $F(x) = x^8$
 $F'(x) = 8x^7$
- $F(x) = x^n$
 $F'(x) = n \cdot x^{n-1}$
- $F(x) = x^{20}$
 $F'(x) = 20x^{19}$

2. Ejercicios

1) $4x^3$
 $12x^2$

2) $5x^6$
 $30x^5$

3) $2x$
 2

4) $3x^3$
 $9x^2$

5) $8x^2$
~~16x~~

3. Ejercicios

1) $2x^2 + 3x$
 $4x + 3$

2) $6x - 2$
 6

3) $5x^5 + x^2$ $2(2x^{2-1})$
 $25x^4 + 2x$

4. Ejercicios

1) $(4x^3 - 2) - (6x^2 + 2)$
 $12(4x^3 - 2) - 12x^2(6x^2 + 2)$

2) $(3x^5 + 5x) + (7x - 3)$
 $7(3x^5 + 5x) + 15x^4(7x - 3)$

3) $(5x^2 - 6) + (8x^3 + 4)$
 $21x^2(5x^2 - 6) + 10x(8x^3 + 4)$

4) $(2x^5 - 3x) - (6x - 1)$
 $6(2x^5 - 3x) - 10x^4(6x - 1)$

5) $(7x^3 + 7) + (7x^3 - 7)$
 $21x^2(7x^3 + 7) + 21x^2(7x^3 - 7)$

1) $7x^2 + x$
 $14x + 1$

5) $9x^3 - 4x$
 $27x^2 - 4$

Exercícios.

	Formula	
1) $f(x) = 3x^2$	$f(x) = (x)$ $f'(x) = (f(x) = f'(x))$	$f(x) = 6x$
2) $f(x) = 5$	$f(x) = 0$ $f(x) = 0$	$f(x) = 0$
3) $f(x) = -2x$	$f(x) = (x)$ $f'(x) = (f(x))' = (x)'$	$f(x) = -2$
4) $f(x) = -2x^2 - 5$	$f(x) = f \pm g$ $f'(x) = (f \pm g)'$ $f(x) = f \pm g$	$f(x) = -4x$
5) $f(x) = 2x^3 + x^2 - x^2 - 4$	$f(x) = f \pm g$ $f'(x) = (f \pm g)'$ $f(x) = f \pm g$	$f(x) = 8x^3 + 3x - 2x$
6) $f(x) = 4x^3 + 6x$	$f(x) = f \pm g = f'(x)$ $= f \pm g'$ $f'(x) = f \pm g$	$f(x) = 12x^2 + 6$
7) $f(x) = 8x^6$	$f(x) = (x)$ $f'(x) = (f(x) = f'(x))$	$f(x) = 48x^5$
8) $f(x) = 8$	$f(x) = 0$ $f(x) = 0$	$f(x) = 0$
9) $(3x^3 + 2x) + (6x^2 + 6)$	$f(x) = f \pm g$ $f'(x) = (f \pm g)' = f' \pm g'$	$21x^3(3x^3 + 2x) + 9x^2 + 2(6x^2 + 6)$
10) $\frac{8x^6 - 6x^3 - 4}{2x^4}$	$f(x) = \left[\frac{f}{g}\right] f'(x) = \frac{f'g - fg'}{g^2}$	$\frac{[8x^3(3x^6 - 6x^3 - 4)] - [48x^5 - 18x^2(6x^2)]}{(2x^4)^2}$

$$11) (7x^2 + 4x) + (6x^3 - 2x^2)$$

$$F(x) = F_g \pm F_g$$

$$F'(x) = (F_g)' = F_g' \pm F_g'$$

$$18x^2 - 4x(7x^2 + 4x) + 14x + 4(6x^3 - 2x^2)$$

$$12) (3x^5 + 6) - (8x^2 - 2x)$$

$$F(x) = F_g \pm F_g$$

$$F'(x) = (F_g)' = F_g' \pm F_g'$$

$$16x - 2(3x^5 + 6) - 16x^2 + 2(8x^2 - 2x)$$

$$13) \frac{2x^3 - x^2}{6x^2 + x + 2}$$

$$F(x) \left[\frac{f}{g} \right] F'(x) = \frac{F'g - Fg'}{g^2}$$

$$\frac{[12x^2 + 1(2x^3 - x^2)] - 6x^2 + x + 2'}{(6x^2 + x + 2)^2}$$

$$14) (6x^4 + 2x^5) - (2x^6 + x^5)$$

$$F(x) = F_g \pm F_g$$

$$F'(x) = (F_g)' = F_g' \pm F_g'$$

$$24x^3 + 10x^4(2x^5 + x^5) - 12x^5 + 5(6x^4 + 11x^5)$$

$$5) F(x) = 78$$

$$F(x) = 0$$

$$F(x) = 0$$

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