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Extra Mate APLI

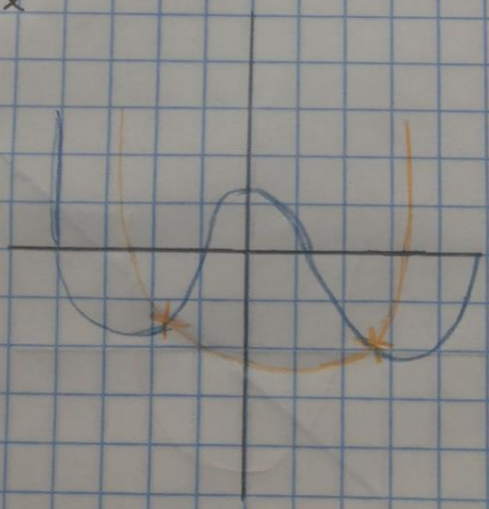
- $F(x) = 2x^2 = 2 * 2x^{2-1} = 4x$

- $F(x) = 2x^4 + x^3 - x^2 + 4$
  $= 8x^3 + 3^2 - 2x$

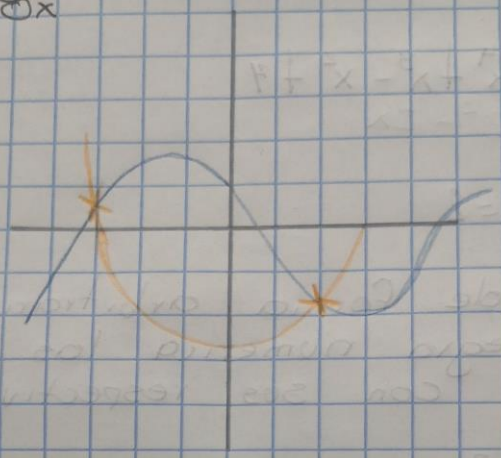
- $F(x) = 2x = 2$

Grafica de forma arbitraria y sin ninguna regla numerica las funciones anteriores con sus respectivas derivadas

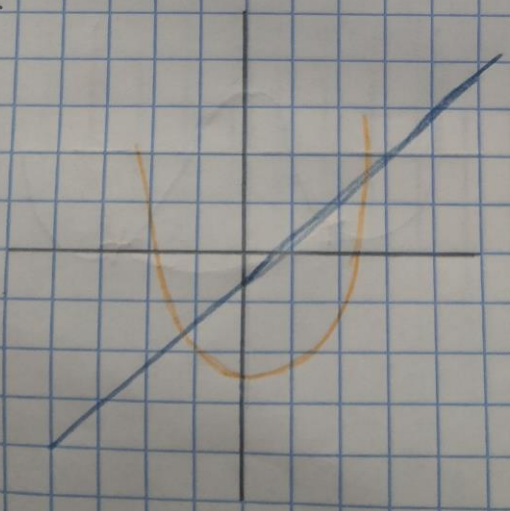
Función $= 2x^2$
derivada $= 4x$



Función = $2x^4$
Derivada = $8x^3$



Función = $2x$
derivada = 2



Integra las siguientes funciones

- $f(x) = 8x + 4 = dx = \frac{x^{n+1}}{n+1}$ con $n = 1$

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

- $F(x) = 8x^3 + 3x^2 + 6x + 2 = dx = \frac{x^{n+1}}{n+1}$ con $n = 3 = \frac{x^4}{4}$

$\int 1\, dx = x$

$8\int x^3\, dx + 3\int x^2\, dx + 6\int x\, dx + 2\int 1\, dx$

$= 2x^4 + x^3 + 3x^2 + 2x + C$

$= x(2x^3 + x^2 + 3x + 2) + C$

- $F(x) = (x+2)^3$

$= \int u^3\, du = \frac{u^{n+1}}{n+1} = \text{con } n = 3 = \frac{u^4}{4}$

$u = x + 2 = \frac{(x+2)^4}{4}$

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

$= \frac{(x+2)^4}{4} + C$