A seguir derivando…

Biomatemáticas

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2° A

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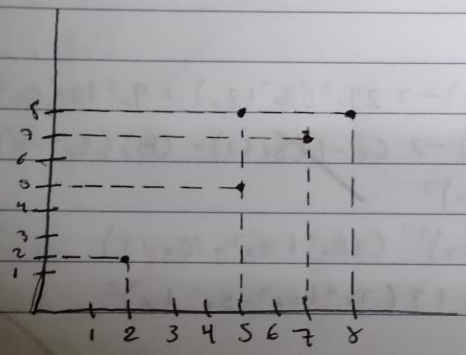
1) $(x = 5x + 3, f(x)) = 5(1) + 3 = 8_y$

2) $(x = 5x^2, f(x)) = 5(1)^2 = 5_y$

3) $(x = 2x^3, f(x)) = 2(1)^3 = 2_y$

4) $(x = 7x, f(x)) = 7(1) = 7_y$

5) $(x = 8x^2, f(x)) = 8(1)^2 = 8_y$



Si f(1) Si f(3)

p(1,1) q(3,7)

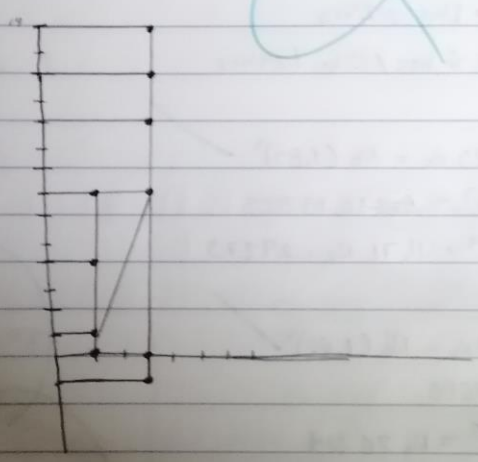
1) $f(x) = 3x - 2$ (1,1) (3,7)

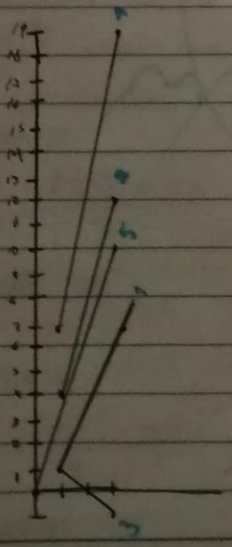
2) $f(x) = x^2 + 3$ (1, 4) (3, 12)

3) $f(x) = -x + 2$ (1,1) (3, -1)

4) $f(x) = 6x + 1$ (1,7) (3,19)

5) $f(x) = 5x - 5$ (1, 0) (3, 10)





Cultivo MO ↑50% c/1hr

Entonces... $N_0 = 2500$ UFC

$N(1)$

$N(1) = N_0 + 0.5 N_0 = N_0 (1.5)^1$

$N(2) = N_0 (1.5)^2$

1) MO ↑ 85% c/h → 3hrs y 4hrs

2) MO ↑ 60% c/h → 1hr y 5hrs

3) MO ↑ 20% c/h → 1hr y 2hrs

4) MO ↑ 35% c/h → 6 hrs / 12hrs / 24hrs

1) $N(1) = N_0 + 0.85 N_0 = N_0 (1.85)^1$

$N(3) = N_0 (1.85)^3 = N_0 15825$

$N(4) = N_0 (1.85)^4 = N_0 = 29275$

2) $N(1) = N_0 + 0.60 N_0 = N_0 (1.60)^1$

$N(1) = 1.60 = N_0 4000$

$N(5) = N_0 (1.60)^5 = N_0 26214$

3) $N(1) = N_0 + 0.20 N_0 = N_0 (1.20)$

$N(1) = N_0 (1.20) = N_0 3000$

$N(2) = N_0 (1.20)^2 = N_0 3600$

4) $N(1) = N_0 + 0.35 N_0 = N_0 (1.35)$

$N(6) = N_0 (1.35)^6 = N_0 15818$

$N(12) = N_0 (1.35)^{12} = N_0 91610$

$N(24) = N_0 (1.35)^{24} = N_0 3,356,993$

Temperatura medida en °C y °F determinada por la igualdad

$9°C - 5°F + 160 = 0$

Expresa en F c/f de C

$5F = 9C + 160$

$\frac{F = 9C + 160}{5}$

$F = \frac{9}{5}C + 32 \rightarrow F(c)$

Expresa en C c/f de F

$9C = 5F - 160$

$\frac{C = 5F - 160}{9} \rightarrow C(F)$

Convierte de °C a °F o °F a °C según corresponda y comprueba

1) 20°C

$F = \frac{9(20) + 160}{5}$

$F = 68°$

$C = \frac{5(68) - 160}{9} = 20°$

2) 104°F

$9C = \frac{5(104) - 160}{9}$

$C = 40°$

$F = \frac{9(40) + 160}{5} = 104°F$

38°C

$F = \frac{9(38) + 32}{5}$

$F = \frac{342}{5} + 32$

$F = 68.4 + 32$

$F = 100.4°F$

$C = \frac{5(100.4) - 160}{9}$

$C = \frac{502 - 160}{9}$

$C = \frac{342}{9} = 38°C$

3) 140°F

$9C = 5F - 160$

$C = \frac{5(140) - 160}{9}$

$C = 60°$

$F = \frac{9(60) + 160}{5} = 140°$

8) -5°C

$F = \frac{9(-5) + 160}{5}$

$F = 23°$

$C = \frac{5(23) + 160}{9} = -5°$

4) 37.2°C

$5F = 9C + 160$

$F = \frac{9(37.2) + 160}{5}$

$F = 98.96$

$C = \frac{5(98.96) - 160}{9} = 37.2°$

5) 35.5°C

$F = \frac{9(35.5) + 160}{5}$

$F = 95.9$

$C = \frac{5(95.9) - 160}{9} = 35.5$

6) 95°F

$C = \frac{5(95) - 160}{9}$

$C = 35°$

$F = \frac{9(35) + 160}{5} = 95°F$

7) -4°F

$C = \frac{5(-4) - 160}{9}$

$C = -20°$

$F = \frac{9(-20) + 160}{5} = -4°$