

1. 350

1000 - 350 = 650

Answer Key

a) $\% \Delta = \frac{120-100}{100} \times 100 = 20\%$

b) $\% \Delta = \frac{85-20}{20} \times 100 = 325\%$

c) $\% \Delta = \frac{40-50}{50} \times 100 = -20\%$

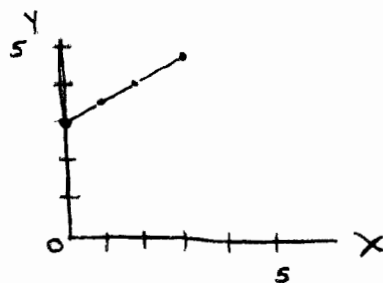
2. $y = \frac{1}{2}x + 3$

a) $\frac{1}{2}(1) + 3 = 3.5$

$\frac{1}{2}(2) + 3 = 4$

$\frac{1}{2}(3) + 3 = 4.5$

b)



c) slope = $\frac{4.5-3}{3-0} = \frac{1.5}{3} = \frac{1}{2}$

d) $y_{int} = \frac{1}{2}(0) + 3 = 3$

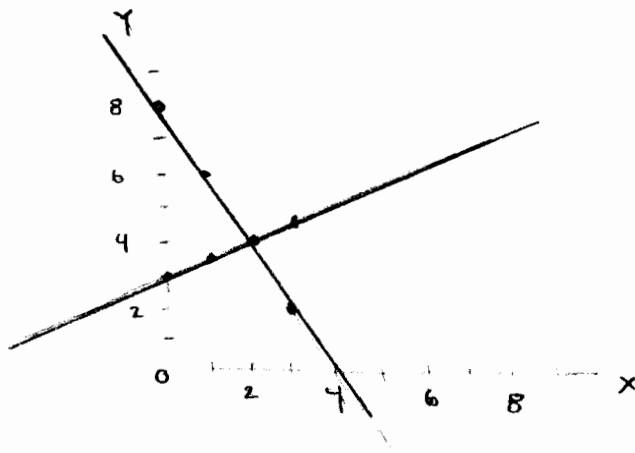
e) $y = -2x + 8$

$-2(1) + 8 = 6$

$-2(2) + 8 = 4$

$-2(3) + 8 = 2$

f)



g) slope = $\frac{6-8}{1-0} = -2$

$y_{int} = -2(0) + 8 = 8$

h) $\frac{1}{2}x + 3 = -2x + 8$

$2.5x = 5$

$x = 2$ $y = 4$

3.

$$a) 2^3 = 2 \times 2 \times 2 = 8$$

$$3^2 = 3 \times 3 = 9$$

$$5^1 = 5$$

$$b) 2^{-3} = \frac{1}{2^3} = \frac{1}{2 \times 2 \times 2} = \frac{1}{8}$$

$$3^{-1} = \frac{1}{3^1} = \frac{1}{3}$$

$$10^{-3} = \frac{1}{10^3} = \frac{1}{10 \times 10 \times 10} = \frac{1}{1000}$$

$$c) 5^2 \times 5^3 = 5^5 = 5 \times 5 \times 5 \times 5 \times 5 = 3125$$

$$6^3 \times 6^{-1} = 6^2 = 6 \times 6 = 36$$

$$4^{1/2} \times 4^{1/2} = 4^1 = 4$$