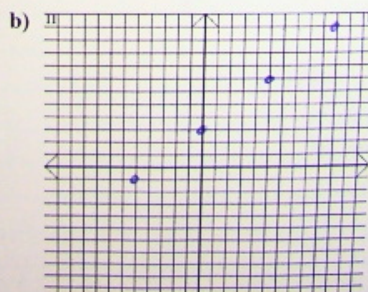
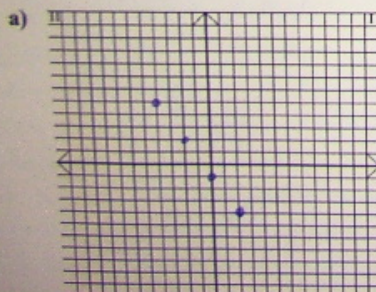


Review for Test

slope, parallel, perpendicular, $y=mx+b$, finding "k", intercepts

1. Find the slope of the line passing through $(5, -7)$ and $(-2, -7)$.
2. A line passes through $(6, -1)$ and $(11, k)$. Find k if the slope is parallel to the x-axis.
3. State the slope perpendicular to $3(y + 7) = 5x - 6$.
4. A line passes through $(k, -4)$ and $(-9, 8)$. Find the value of k if the slope is parallel to $y=7x-6$.
5. A line passes through $(6, 7)$ and $(5k, 9)$. Find k if the slope of the line is perpendicular to $5/6$.
6. Calculate the slope of the line represented by $10(x+4) = 5(5y-2)$.
7. A line passes through $(2k, 0)$ and $(2k, 6)$. Find k if the slope of the line is parallel to $-3/7$.
8. What is the slope of a line with an x-intercept of 7 and a y-intercept of -9.
9. A line passes through points $(3, 5k)$ and $(-8k, 6)$. Find k if the slope of the line is perpendicular to $y=6/3x+11$.
10. State the slope perpendicular to $12x + 4y = 16$.
11. State the slope(m), the y-intercept, and write the equation.



6. Calculate the slope of the line represented by $10(x+4) = 5(5y-2)$.

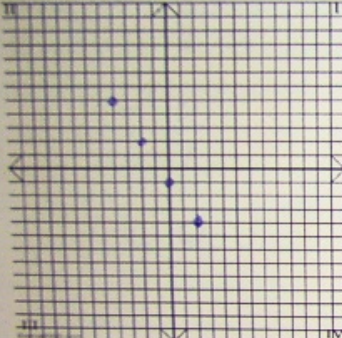
7. A line passes through $(2k, 0)$ and $(2k, 6)$. Find k if the slope of the line is parallel to $-3/7$.

8. What is the slope of a line with an x-intercept of 7 and a y-intercept of -9.

9. A line passes through points $(3, 5k)$ and $(-8k, 6)$. Find k if the slope of the line is perpendicular to $y=6/3x+11$.

10. State the slope perpendicular to $12x + 4y = 16$.

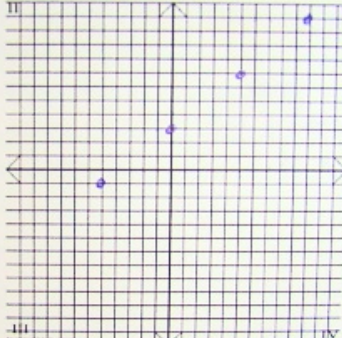
11. State the slope(m), the y-intercept, and write the equation.

a) 

Slope (m): $-3/2$

Y-intercept(b): -1

Equation: $y = -\frac{3}{2}x - 1$

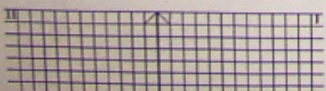
b) 

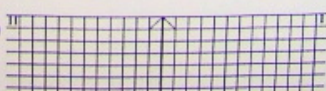
Slope (m): $4/5$

Y-intercept(b): 3

Equation: $y = \frac{4}{5}x + 3$

12. State the slope, and y-intercept, then graph.

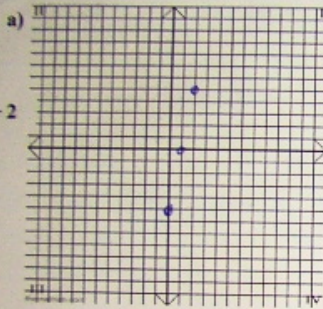
a) 

b) 

Slope (m): $-\frac{3}{2}$
 Y-intercept(b): -1
 Equation: $y = -\frac{3}{2}x - 1$

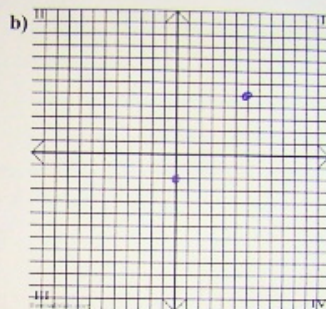
Slope (m): $\frac{4}{5}$
 Y-intercept(b): 3
 Equation: $y = \frac{4}{5}x + 3$

12. State the slope, and y-intercept, then graph.



$\frac{2}{5}y + 4 = 2x + 2$

Slope (m): $\frac{5}{1}$
 Y-intercept(b): -5



$6(2y + 1) = 2(7x - 9)$

Slope (m): $\frac{7}{6}$
 Y-intercept(b): -2

13. Wanda wants a charm bracelet that costs \$25 and \$9 for every charm.

- Write the equation to represent the situation.
- How much will it cost for 8 charms?
- How many charms can Wanda purchase for \$110?

Review For Test.

1.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

 $(5, -7)$
 $(-2, -7)$

$$= \frac{-7 - (-7)}{-2 - 5}$$

$$= \frac{-7 + 7}{-2 - 5}$$

$$= \frac{0}{-7}$$

$$= 0$$

2. $(6, -1)$
 $(11, K)$ Parallel
x-axis

$$\frac{0}{1}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{0}{1} = \frac{K - (-1)}{11 - 6}$$

$$\frac{0}{1} = \frac{K + 1}{11 - 6}$$

~~or~~

$$1(K + 1) = 0(11 - 6)$$

$$K + 1 = 0$$

$$K = -1$$

$$\frac{-7}{-7} = 0$$
$$1(k+1) = 0(11-6)$$
$$k+1 = 0$$
$$k = -1$$

3. $3(y+7) = 5x - 6$

$$3y + 21 = 5x - 6$$
$$3y = 5x - 27$$
$$\frac{3y}{3} = \frac{5x - 27}{3}$$
$$y = \frac{5}{3}x - 9$$
$$\frac{5}{3} \quad \frac{1}{3} \quad \left(\frac{-3}{5} \right)$$

"perpendicular to"

13. Wanda wants a charm bracelet that costs \$25 and 150 charms

$(K, -4)$
 $(-9, 8)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
$$y = 7x - 6 \quad \frac{7}{1} = \frac{8 - (-4)}{-9 - K}$$

$\left(\frac{7}{1}\right)$

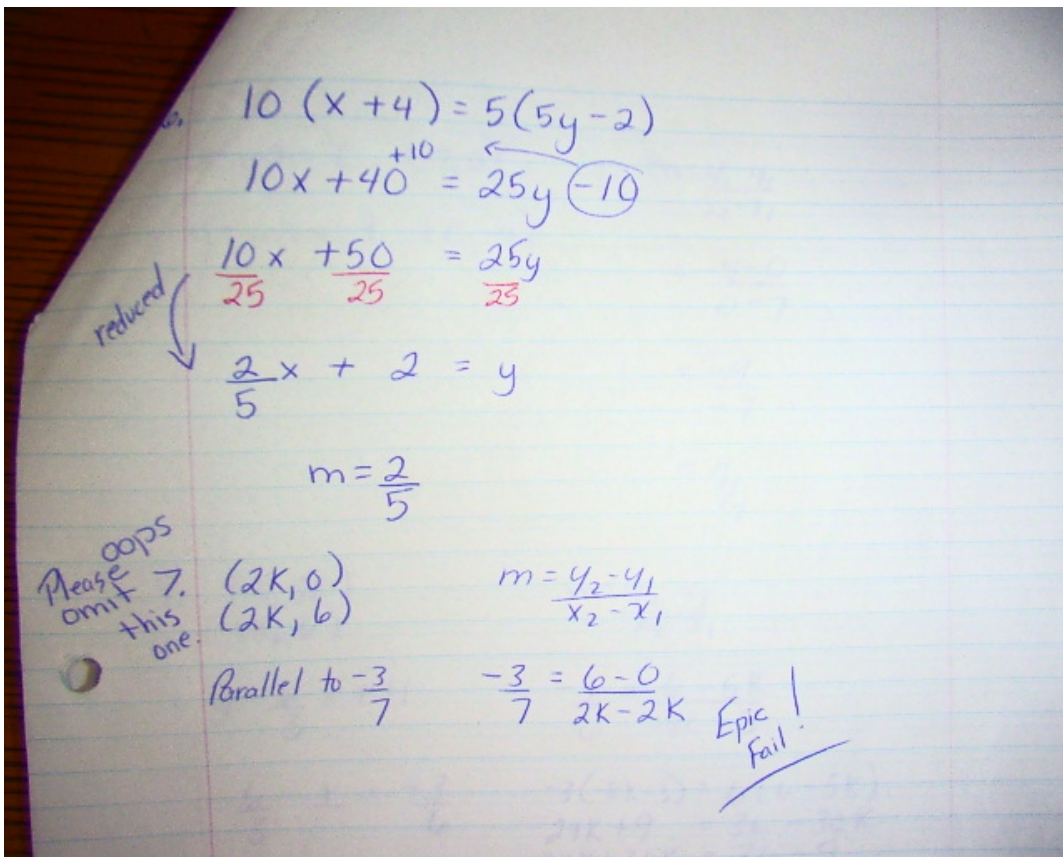
$$7(-9 - K) = 1(8 + 4)$$
$$-63 - 7K = 8 + 4$$
$$-7K = 8 + 4 + 63$$
$$\frac{-7K}{-7} = \frac{75}{-7}$$
$$K = -10.7$$

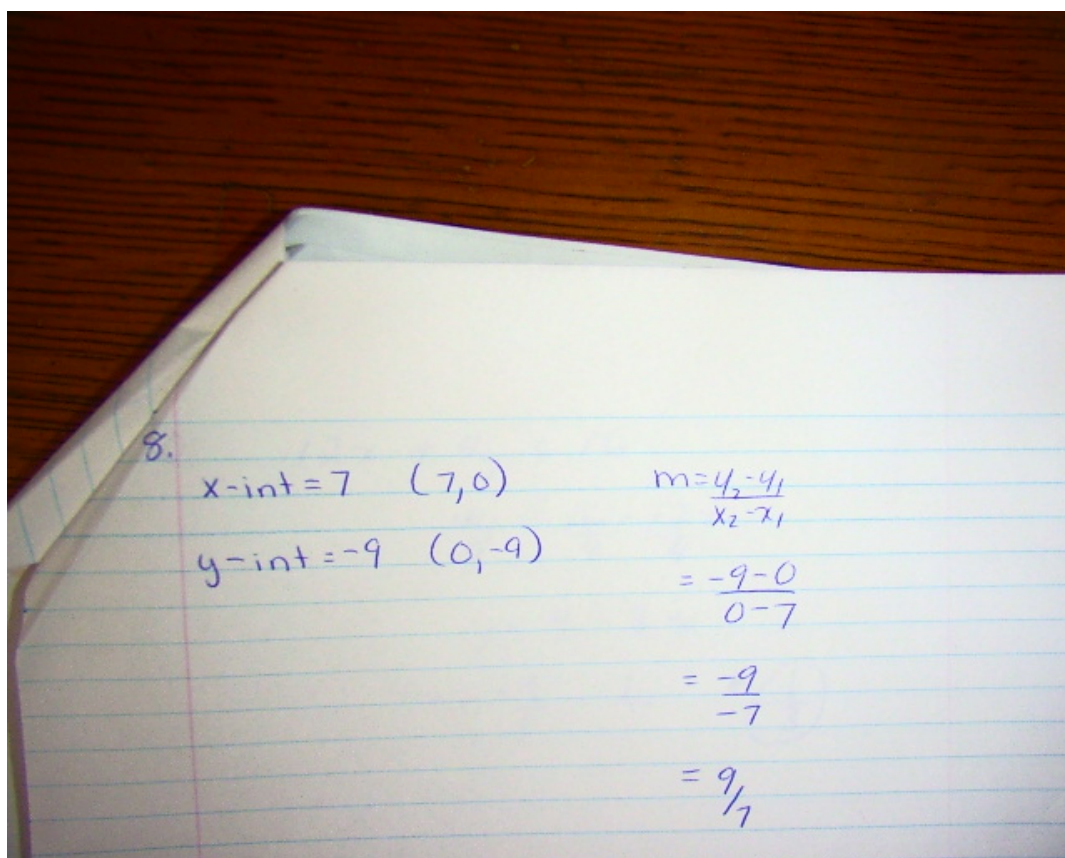
$$\begin{aligned} 7(-9-k) &= 1(8+4) \\ -63 - 7k &= 8 + 4 \\ -7k &= 8 + 4 + 63 \\ -7k &= 75 \\ \frac{-7k}{-7} &= \frac{75}{-7} \\ k &= -10.7 \end{aligned}$$

5. $\begin{pmatrix} 6, 7 \\ 5k, 9 \end{pmatrix}$ $m = \frac{y_2 - y_1}{x_2 - x_1}$

$$\frac{1}{5} \text{ to } \frac{5}{6} \quad \frac{-6}{5} = \frac{9-7}{5k-6}$$

$$\begin{aligned} -6(5k-6) &= 5(9-7) \\ -30k+36 &= 45-35 \\ -30k &= 45-35-36 \\ -30k &= -26 \\ \frac{-30k}{-30} &= \frac{-26}{-30} \\ k &= 0.87 \end{aligned}$$



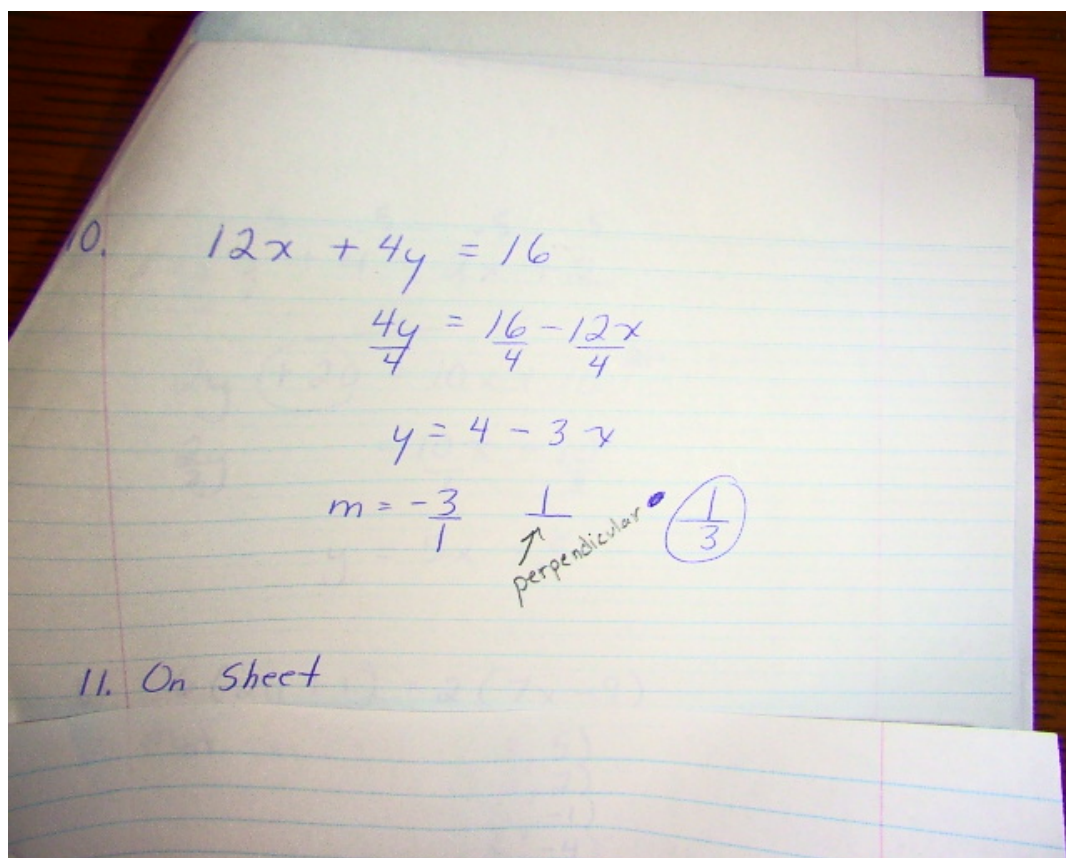


8.

$$\begin{aligned}x\text{-int} &= 7 & (7, 0) \\y\text{-int} &= -9 & (0, -9)\end{aligned}$$
$$\begin{aligned}m &= \frac{y_2 - y_1}{x_2 - x_1} \\&= \frac{-9 - 0}{0 - 7} \\&= \frac{-9}{-7} \\&= \frac{9}{7}\end{aligned}$$

9. $(3, 5K)$
 $(-8K, 6)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
$$y = \frac{6}{3}x + 11$$
$$\frac{6}{3} \perp = \frac{-3}{6}$$
$$-3 = \frac{6 - 5K}{-8K - 3}$$
$$-3(-8K - 3) = 6(6 - 5K)$$
$$24K + 9 = 36 - 30K$$
$$24K + 30K = 36 - 9$$
$$\frac{54K}{54} = \frac{27}{54}$$
$$K = 0.5$$



2. $\frac{2}{5}y + 4 = 2x + 2$

a) $2y + 20 = 10x + 10^{-20}$

$\frac{2y}{2} = \frac{10x}{2} - \frac{10}{2}$

$y = 5x - 5$

$$\begin{aligned}
 \text{b) } 6(2y+1) &= 2(7x-9) \\
 12y + 6 &= 14x - 18 - 6 \\
 \frac{12y}{12} &= \frac{14x}{12} - \frac{24}{12} \\
 &\quad \text{reduced} \\
 y &= \frac{7}{6}x - 2
 \end{aligned}$$

$$13. \text{ a) } y = 9x + 25 \quad \left\{ \text{ b) } y = \dots \right.$$

$$\begin{aligned}
 \text{b) } y &= 9x + 25 \\
 y &= 9(8) + 25 \\
 &= 72 + 25 \\
 &= 97
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } y &= 9x + 25 \\
 110 &= 9x + 25 \\
 \frac{85}{9} &= \frac{9x}{9} \\
 9.4 &= x
 \end{aligned}$$

9 charms