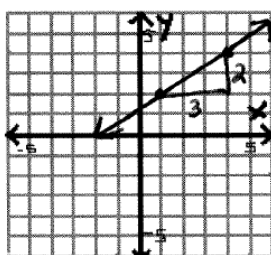


answers\_HW page 46

1. (1, 2) and (4, 4)

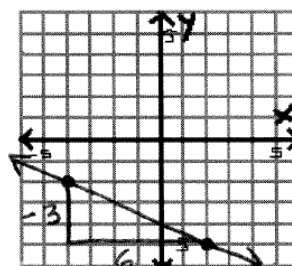
$$m = \frac{2}{3}$$



2. (-4, -2) and (2, -5)

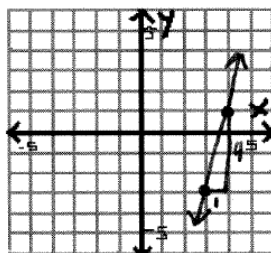
$$-3/6 = -1/2$$

$$m = -1/2$$



3. (3, -3) and (4, 1)

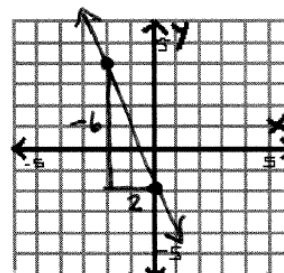
$$m = 4$$



4. (-2, 4) and (0, -2)

$$-6/2 = -3$$

$$m = -3$$

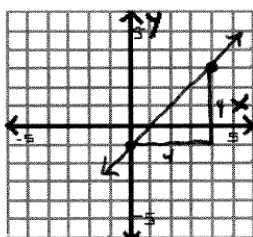


answers\_HW page 46

5. (0, -1) and (4, 3)

$$\frac{4}{4} = 1$$

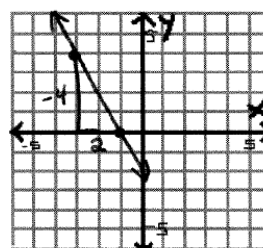
$$m = \underline{1}$$



6. (-1, 0) and (-3, 4)

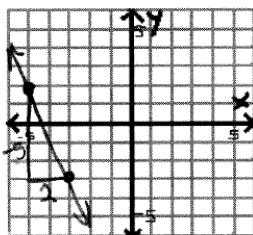
$$\frac{-4}{2} = -2$$

$$m = \underline{-2}$$



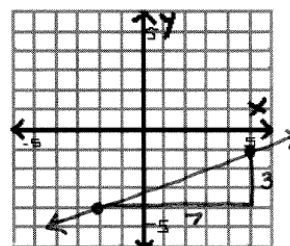
7. (-5, 2) and (-3, -3)

$$m = \underline{-5/2}$$



8. (5, -1) and (-2, -4)

$$m = \underline{3/7}$$

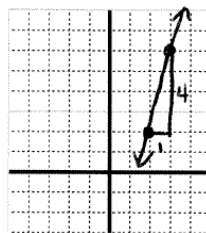


## answers\_HW page 47 odds

1. (2, 2) and (3, 6)

$$\frac{6-2}{3-2} = \frac{4}{1} = 4$$

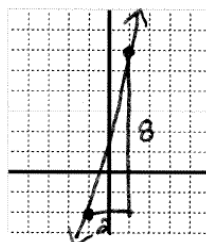
$$m = 4$$



3. (-1, -2) and (1, 6)

$$\frac{6 - -2}{1 - -1} = \frac{8}{2} = 4$$

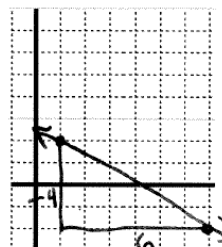
$$m = 4$$



5. (1, 2) and (7, -2)

$$\frac{-2-2}{7-1} = \frac{-4}{6}$$

$$m = -2/3$$

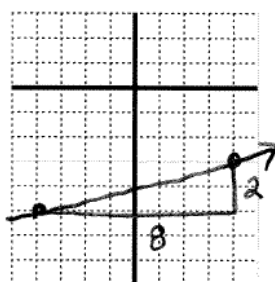


## answers\_HW page 47 odds

7.  $(-4, -5)$  and  $(4, -3)$

$$\frac{-3 - (-5)}{4 - (-4)} = \frac{2}{8}$$

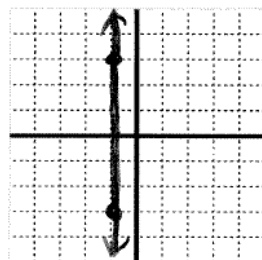
$$m = \frac{1}{4}$$



9.  $(-1, 3)$  and  $(-1, -3)$

$$\frac{-3 - 3}{-1 - (-1)} = \frac{-6}{0}$$

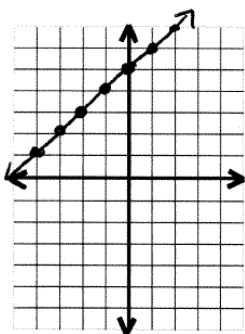
$$m = \text{und.}$$



answers\_HW page 48

1.  $y = x + 5$

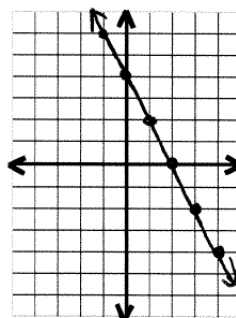
$m = 1$   $y\text{-int} = (0, 5)$



$b = 5$   
 $y\text{-int} = 5$

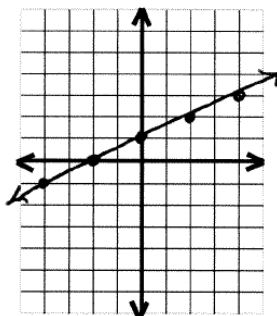
3.  $y = -2x + 4$

$m = -2$   $y\text{-int} = (0, 4)$



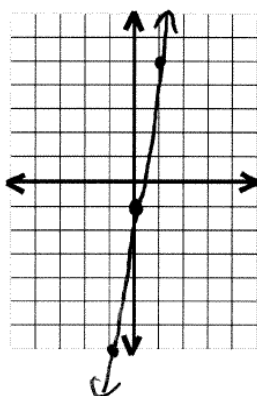
5.  $y = \frac{1}{2}x + 1$

$m = \frac{1}{2}$   $y\text{-int} = (0, 1)$



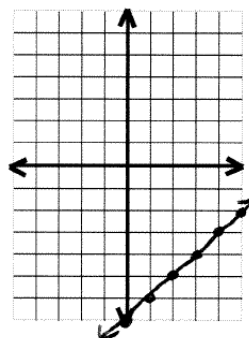
7.  $y = 6x - 1$

$m = 6$   $y\text{-int} = (0, -1)$

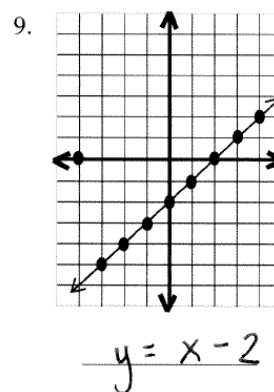
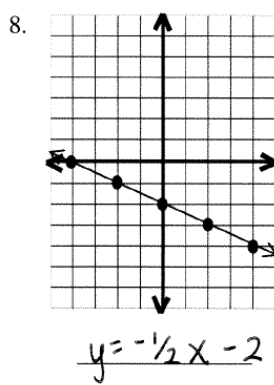
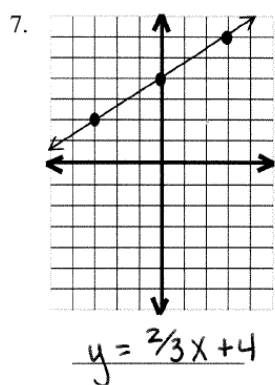
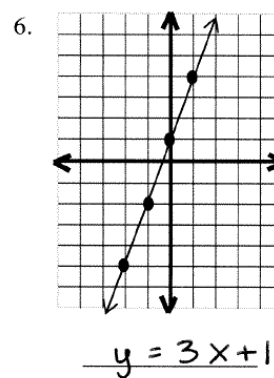
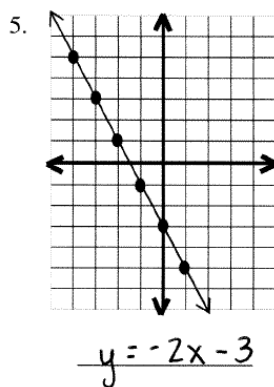
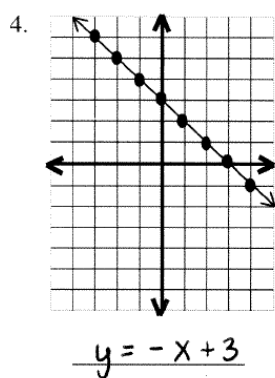
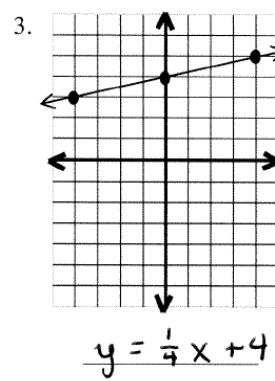
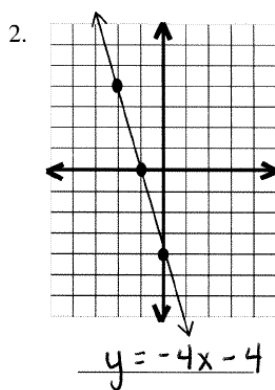
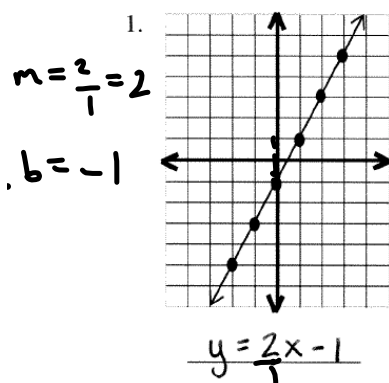


9.  $y = x - 7$

$m = 1$   $y\text{-int} = (0, -7)$



answers\_HW page 49



Algebra 1-W44  
Pretest: 5-2

Directions: Identify the slope and y-intercept for each.

①  $y = -\frac{2}{3}x - 4$      $m = \underline{-\frac{2}{3}}$      $b = \underline{-4}$

②  $3x + y = 5$      $m = \underline{-3}$      $b = \underline{5}$

③  $3x + 4y = 12$      $m = \underline{-\frac{3}{4}}$      $b = \underline{3}$

④  $6 - x = y$      $m = \underline{\quad}$      $b = \underline{\quad}$

⑤  $2x - y = 7$      $m = \underline{\quad}$      $b = \underline{\quad}$

④  $6 - x = y$   
 $\uparrow \quad \uparrow$   
 $b = 6 \quad m = -1$

⑤  $2x - y = 7$   
 $\frac{-y}{-1} = \frac{-2x + 7}{-1}$   
 $y = 2x - 7$   
 $m = 2 \quad b = -7$

②  $3x + y = 5$   
 $\quad \quad -3x$   
 $y = -3x + 5$

③  $3x + 4y = 12$   
 $\quad \quad -3x$   
 $4y = -3x + 12$   
 $\frac{4y}{4} = \frac{-3x}{4} + \frac{12}{4}$   
 $y = -\frac{3}{4}x + 3$

## page 81

**Example 5: Transforming Equations into Slope-Intercept Form ( $y = mx + b$ )**

The goal is to get y by itself and rest in mx + b form. Then name the slope and y-intercept of each line:

Easy Level:

$2x + y = 5$

$$\begin{array}{r|l} -2x & -2x \\ \hline y & = -2x + 5 \end{array}$$

$m = -2$

$y\text{-int} = 5$

Medium Level:

$3y + 6x = -9$

$$\begin{array}{r|l} 3y & = -6x - 9 \\ \hline \frac{3y}{3} & = \frac{-6x}{3} - \frac{9}{3} \end{array}$$

$$\frac{3y}{3} = \frac{-6x}{3} - \frac{9}{3}$$

$y = -2x - 3$

$m = -2$

$y\text{-int} = -3$

Hard Level:

$2x - 4y = 3$

$-4y = -2x + 3$

$$\frac{-4y}{-4} = \frac{-2x}{-4} + \frac{3}{-4}$$

$\frac{1}{2}y = \frac{1}{2}x - \frac{3}{4}$

$m =$

$y\text{-int} = -\frac{3}{4}$



✓ Understanding Check:

Change each of the standard form equations back into slope-intercept form ( $y=mx+b$ ). Then name the slope and y-intercept.

Solving for y – Easy Level

1. $14 + y = 8x$ $y = 8x - 14$  $m = 8$ $y\text{-int} = -14$	2. $y - 9 = 6x$  $m = \underline{\hspace{2cm}}$ $y\text{-int} = \underline{\hspace{2cm}}$	3. $y - 8x = 16$ $y = 8x + 16$  $m = 8$ $y\text{-int} = 16$	4. $10 = y - 7x$  $m = \underline{\hspace{2cm}}$ $y\text{-int} = \underline{\hspace{2cm}}$
5. $-8 + y = -2x$ $y = -2x + 8$  $m = -2$ $y\text{-int} = 8$	6. $-6 = y + 8x$  $m = \underline{\hspace{2cm}}$ $y\text{-int} = \underline{\hspace{2cm}}$	7. $-10 + y = 4x$ $y = 4x + 10$  $m = 4$ $y\text{-int} = 10$	8. $y - 15x = -5$  $m = \underline{\hspace{2cm}}$ $y\text{-int} = \underline{\hspace{2cm}}$

## answers

✓ Understanding Check:

Change each of the standard form equations back into slope-intercept form ( $y=mx+b$ ). Then name the slope and y-intercept.

Solving for y – Easy Level

1. $14 + y = 8x$ $\xrightarrow{-14}$ $y = 8x - 14$  $m = 8$ $y\text{-int} = (0, -14)$	2. $y - 9 = 6x$ $\xrightarrow{+9}$ $y = 6x + 9$  $m = 6$ $y\text{-int} = (0, 9)$	3. $y - 8x = 16$ $\xrightarrow{+8x}$ $y = 8x + 16$  $m = 8$ $y\text{-int} = (0, 16)$	4. $10 = y - 7x$ $+7x \xleftarrow{-10}$ $y = 7x + 10$  $m = 7$ $y\text{-int} = (0, 10)$
5. $-8 + y = -2x$ $\xrightarrow{+8}$ $y = -2x + 8$  $m = -2$ $y\text{-int} = (0, 8)$	6. $-6 = y + 8x$ $-8x \xleftarrow{+6}$ $y = -8x - 6$  $m = -8$ $y\text{-int} = (0, -6)$	7. $-10 + y = 4x$ $\xrightarrow{+10}$ $y = 4x + 10$  $m = 4$ $y\text{-int} = (0, 10)$	8. $y - 15x = -5$ $\xrightarrow{+15x}$ $y = 15x - 5$  $m = 15$ $y\text{-int} = (0, -5)$

## page 82

Solving for y - Medium Level

1.  $14 + 2y = 8x$

$$2y = 8x - 14$$

$$y = \frac{8x}{2} - \frac{14}{2}$$

$$y = 4x - 7$$

$$m = \underline{4}$$

$$y\text{-int} = \underline{-7}$$

2.  $-3y - 9 = 6x$

$$-3y = 6x + 9$$

$$m = \underline{-2}$$

$$y\text{-int} = \underline{-3}$$

3.  $4y - 8x = 16$

$$m = \underline{2}$$

$$y\text{-int} = \underline{4}$$

4.  $10 = -y - 7x$

$$m = \underline{-7}$$

$$y\text{-int} = \underline{-10}$$

Solving for y - Hard Level

1.  $x + 2y = 8$

$$2y = -x + 8$$

$$y = -\frac{1}{2}x + 4$$

$$m = \underline{-1/2}$$

$$y\text{-int} = \underline{4}$$

2.  $-3y - 6 = 2x$

$$-3y = 2x + 6$$

$$\frac{-3y}{-3} = \frac{2x}{-3} + \frac{6}{-3}$$

$$y = -\frac{2}{3}x - 2$$

$$m = \underline{-2/3}$$

$$y\text{-int} = \underline{-2}$$

3.  $10 = -5y - 2x$

$$m = \underline{-2/5}$$

$$y\text{-int} = \underline{-2}$$

4.  $4y - 3x = 1$

$$m = \underline{3/4}$$

$$y\text{-int} = \underline{1/4}$$

**✓ Understanding Check:**

Solve each equation for  $y$ , then graph using the  $y = mx + b$  shortcut.

1.  $4x + y = 3$

2.  $-6x + 2y = -8$

3.  $2x - 6y = -6$

