

Graphing Practice Quiz #1

Write the SLOPE-INTERCEPT FORM of the equation of the line through the given point with the given slope.

- 1) through: $(-2, 4)$, slope = -1

$$y = mx + b$$

$$4 = -1(-2) + b$$

$$4 = 2 + b$$

$$2 = b$$

$$y = -1x + 2$$

- 2) through: $(1, -2)$, slope = 2

$$y = mx + b$$

$$-2 = 2(1) + b$$

$$-2 = 2 + b$$

$$-4 = b$$

$$y = 2x - 4$$

- 3) through: $(1, 5)$, slope = 7

$$y = mx + b$$

$$5 = 7(1) + b$$

$$5 = 7 + b$$

$$-2 = b$$

$$y = 7x - 2$$

- 4) through: $(1, -2)$, slope = -4

$$y = mx + b$$

$$-2 = -4(1) + b$$

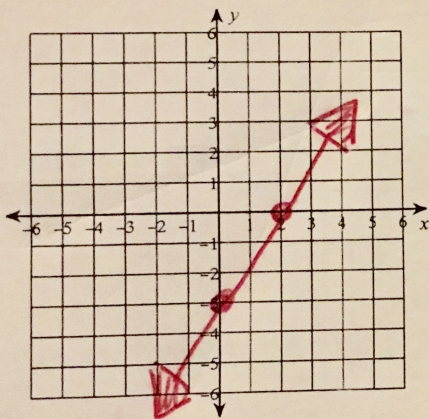
$$-2 = -4 + b$$

$$2 = b$$

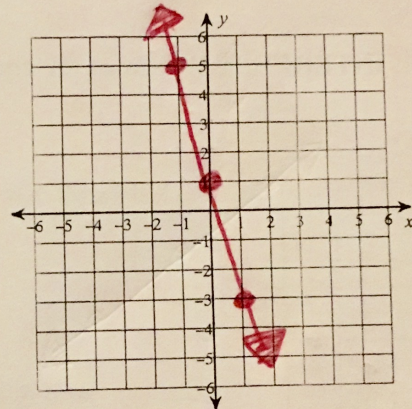
$$y = -4x + 2$$

Sketch the graph of each line.

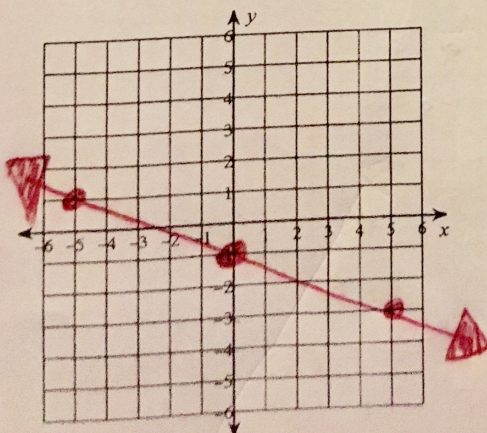
5) $y = \frac{3}{2}x - 3$



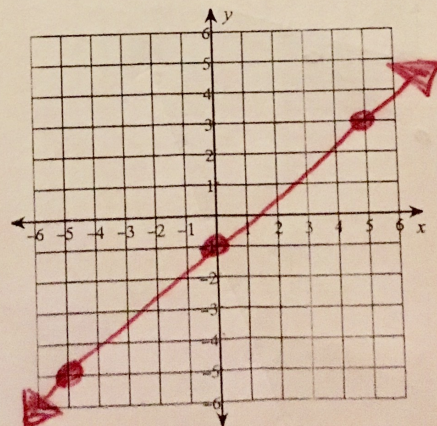
6) $y = -4x + 1$



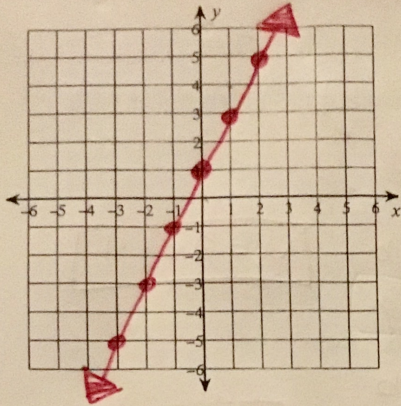
7) $y = -\frac{2}{5}x - 1$



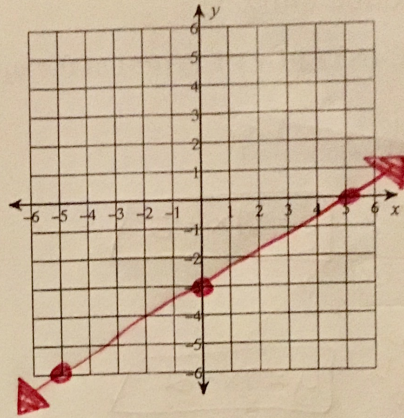
8) $y = \frac{4}{5}x - 1$



9) $y = 2x + 1$

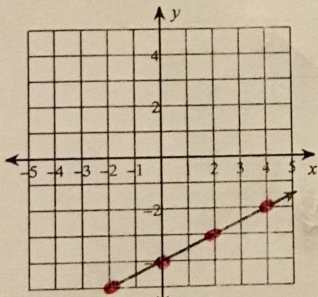


10) $y = \frac{3}{5}x - 3$



Write the SLOPE-INTERCEPT FORM of the equation of each line.

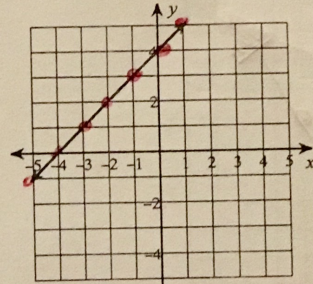
11)



SLOPE = $\frac{1}{2}$, y-INT = -4

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

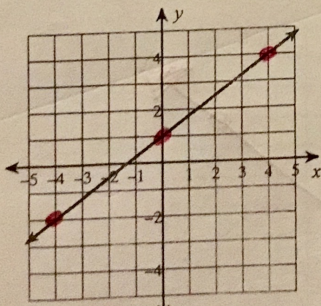
12)



SLOPE = $\frac{1}{1} = 1$, y-INT = 4

$y = x + 4$

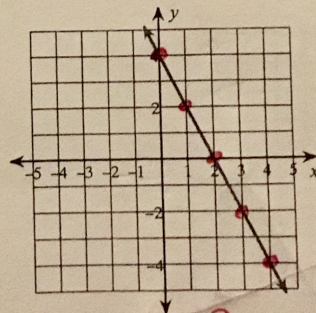
13)



SLOPE = $\frac{3}{4}$, y-INT = 1

$y = \frac{3}{4}x + 1$

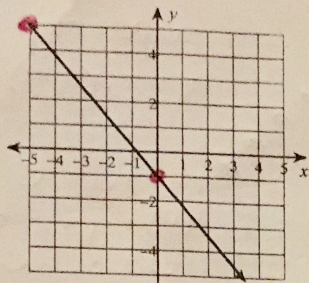
14)



SLOPE = $\frac{-2}{1} = -2$
y-INT = 4

$y = -2x + 4$

15)

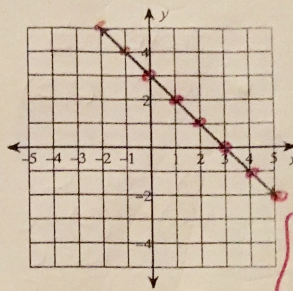


$$\text{SLOPE} = -\frac{6}{5}$$

$$y\text{-INT} = -1$$

$$y = -\frac{6}{5}x - 1$$

16)



$$\text{SLOPE} = -\frac{1}{1} = -1$$

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

$$y = -x + 3$$

Write the STANDARD FORM of the equation of the line through the given point with the given slope.

17) through: $(-3, 4)$, slope = $-\frac{2}{3}$

$$\begin{aligned} 2x + 3y &= C \\ 2(-3) + 3(4) &= C \\ -6 + 12 &= C \\ 6 &= C \end{aligned}$$

$$2x + 3y = 6$$

18) through: $(2, 0)$, slope = $-\frac{3}{2}$

$$\begin{aligned} 3x + 2y &= C \\ 3(2) + 2(0) &= C \\ 6 + 0 &= C \\ 6 &= C \end{aligned}$$

$$3x + 2y = 6$$

19) through: $(-2, 5)$, slope = $-\frac{1}{1}$

$$\begin{aligned} 1x + 1y &= C \\ 1(-2) + 1(5) &= C \\ -2 + 5 &= C \\ 3 &= C \end{aligned}$$

$$\begin{aligned} 1x + 1y &= 3 \\ x + y &= 3 \end{aligned}$$

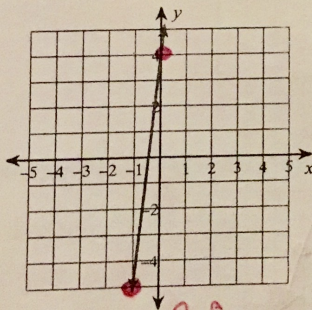
20) through: $(-3, -1)$, slope = $\frac{2}{1}$

$$\begin{aligned} 2x - 1y &= C \\ 2(-3) - 1(-1) &= C \\ -6 + 1 &= C \\ -5 &= C \end{aligned}$$

$$2x - y = -5$$

Write the STANDARD FORM of the equation of each line.

21)



$$\text{SLOPE} = \frac{9}{1}$$

POINTS: $(-1, -5)$ or $(0, 4)$

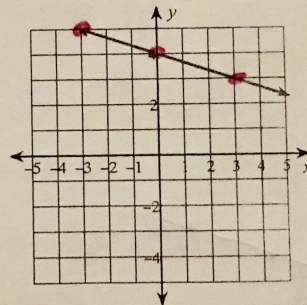
$$\begin{aligned} 9x - 1y &= C \\ 9(0) - 1(4) &= C \\ 0 - 4 &= C \\ -4 &= C \end{aligned}$$

$$9x - 1y = -4$$

$$\begin{aligned} 9x - 1y &= C \\ 9(-1) - 1(-5) &= C \\ -9 + 5 &= C \\ -4 &= C \end{aligned}$$

$$9x - 1y = -4$$

22)



$$\text{SLOPE} = -\frac{1}{3}$$

POINTS: $(-3, 5)$
 $(0, 4)$
 $(3, 3)$

$$\begin{aligned} 1x + 3y &= C \\ 1(-3) + 3(5) &= C \\ -3 + 15 &= C \\ 12 &= C \end{aligned}$$

$$1x + 3y = 12$$

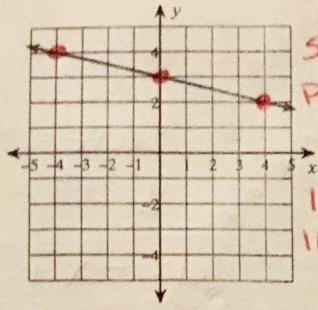
$$\begin{aligned} 1x + 3y &= C \\ 1(0) + 3(4) &= C \\ 0 + 12 &= C \\ 12 &= C \end{aligned}$$

$$1x + 3y = 12$$

$$\begin{aligned} 1x + 3y &= C \\ 1(3) + 3(3) &= C \\ 3 + 9 &= C \\ 12 &= C \end{aligned}$$

$$1x + 3y = 12$$

23)



SLOPE: $-\frac{1}{4}$
 POINT: $(0, 3)$

$$1x + 4y = C$$

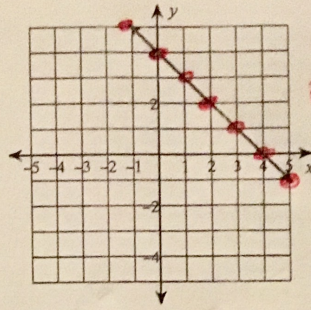
$$1(0) + 4(3) = C$$

$$0 + 12 = C$$

$$12 = C$$

$$\boxed{1x + 4y = 12}$$

24)



SLOPE: $-\frac{1}{1}$
 POINT: $(0, 4)$

$$1x + 1y = C$$

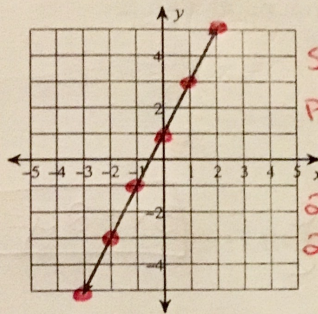
$$1(0) + 1(4) = C$$

$$0 + 4 = C$$

$$4 = C$$

$$\boxed{1x + 1y = 4}$$

25)



SLOPE: $\frac{2}{1}$
 POINT: $(0, 1)$

$$2x - 1y = C$$

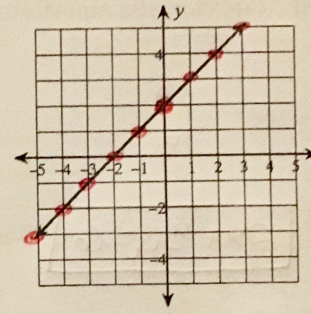
$$2(0) - 1(1) = C$$

$$0 - 1 = C$$

$$-1 = C$$

$$\boxed{2x - 1y = -1}$$

26)



SLOPE: $\frac{1}{1}$
 POINT: $(0, 2)$

$$1x - 1y = C$$

$$1(0) - 1(2) = C$$

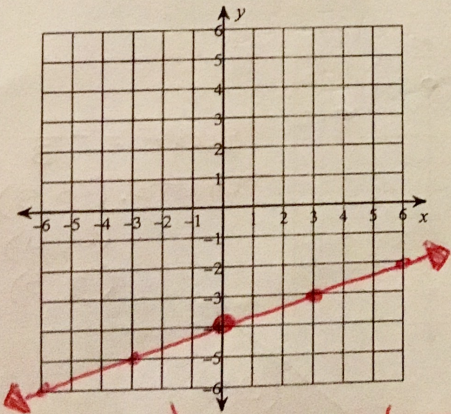
$$0 - 2 = C$$

$$-2 = C$$

$$\boxed{1x - 1y = -2}$$

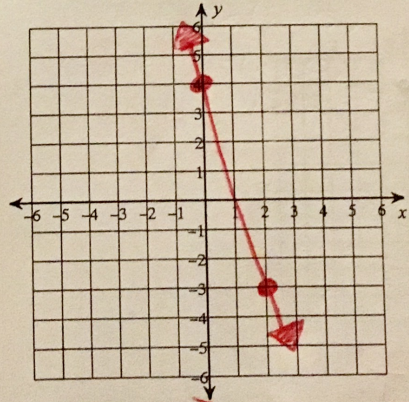
Sketch the graph of each line.

27) $x - 3y = 12$



SLOPE: $\frac{1}{3}$ y-int (x=0):
 $x - 3y = 12$
 $0 - 3y = 12$
 $-3y = 12$
 $y = -4$

28) $7x + 2y = 8$



SLOPE: $-\frac{7}{2}$ y-int (x=0):
 $7x + 2y = 8$
 $7(0) + 2y = 8$
 $0 + 2y = 8$
 $2y = 8$
 $y = 4$