

Practice Quiz

Solve each equation.

1) $-39 + 3n = -4(n + 1)$

$n = 5$

2) $-n - 17 = 3(1 - 7n)$ $n = 1$

$$\begin{array}{r} -n - 17 = 3 - 21n \\ + 21n \qquad \qquad + 21n \\ \hline 20n - 17 = 3 \\ + 17 \qquad + 17 \\ \hline 20n = 20 \\ \underline{20} \qquad \underline{20} \\ n = 1 \end{array}$$

Simplify.

3) $\sqrt{98}$ $\sqrt{49} \sqrt{2}$ $7\sqrt{2}$

A) $4\sqrt{5}$

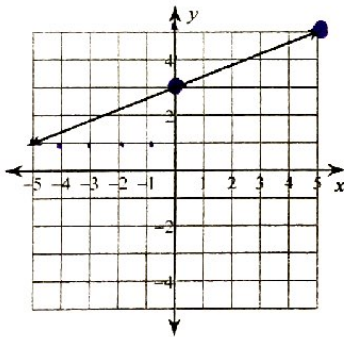
B) $6\sqrt{7}$

C) $7\sqrt{2}$

D) $8\sqrt{2}$

Write the slope-intercept form of the equation of each line. $y = mx + b$

4)

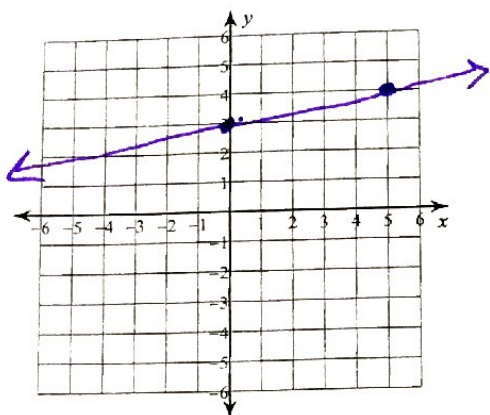


$y = \frac{2}{5}x + 3$

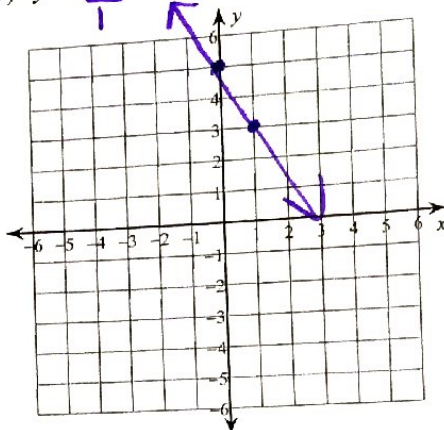
$\frac{+2}{+5}$

Sketch the graph of each line.

5) $y = \frac{1}{5}x + 3$



6) $y = -2x + 5$



Evaluate the function.

7) $p(x) = -2x^2 - 3x$; Find $p(-8)$

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$$\begin{aligned} & -2(-8)^2 - 3(-8) \\ & -2(64) - 3(-8) \\ & -128 + 24 = \end{aligned}$$

Write the slope-intercept form of the equation of each line. (Solve for y.)

8) $5x - 3y = 21$

A) $y = \frac{2}{3}x - 7$

B) $y = -\frac{2}{3}x - 7$

C) $y = \frac{5}{3}x - 7$

D) $y = -\frac{1}{3}x - 7$

$$\begin{aligned} 5x - 3y &= 21 \\ -5x \quad -5x & \\ \hline -3y &= 75x + 21 \\ \frac{-3y}{-3} &= \frac{75x + 21}{-3} \end{aligned}$$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

9) through: $(1, -4)$, slope $m = -4$

$y = -4x + 0$

$y = -4x$

$$\begin{aligned} y &= mx + b \\ -4 &= (-4)\left(\frac{1}{1}\right) + b \\ -4 &= -4 + b \end{aligned}$$

$$-4 = -4 + b$$

Write the slope-intercept form of the equation of the line through the given points.

10) through: $(-5, -2)$ and $(4, -5)$
 x_1, y_1 x_2, y_2

$$y = -\frac{1}{3}x - \frac{11}{3}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-5 - (-2)}{4 - (-5)} = \frac{-3}{9} = -\frac{1}{3} = m$$

$$y = mx + b$$
$$-5 = -\frac{1}{3}(4) + b$$

$$\begin{array}{r} -\frac{15}{3} \\ + \frac{4}{3} \\ \hline -\frac{11}{3} = b \end{array} \quad \begin{array}{r} 3 \cdot -5 = -\frac{4}{3} + b \\ 3 \cdot 1 \\ + \frac{4}{3} \\ \hline \end{array}$$

$$-\frac{11}{3} = b$$