

Name: key

Date: _____

Quiz Review

1. Which equation describes the line that passes through (-3, 1) and is parallel to the line described by $y = 4x + 1$?

- A. $y = 4x + 13$ B. $y = 1/4x + 1/4$ C. $y = 4x - 11$ D. $y = -1/4x + 7/4$
- $1 = 4(-3) + b$
 $b = 13$

2. Which equation describes a line perpendicular to $y = 3x - 5$?

- A. $y = 1/3x - 3$ B. $y = -1/3x - 3$ C. $y = 3x - 3$ D. $y = -3x - 3$

3. Write the equation of the line that passes through (0, 3) and is perpendicular to the line $y = -5x - 4$.

$3 = \frac{1}{5}(0) + b$
 $b = 3$

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

4. Given a right triangle with the length of one leg equal to 9 centimeters and the length of the hypotenuse equal to 15 centimeters, what is the length of the other leg? 12

5.a) Find the distance between points A(5, 6) and B(1, -4). $\sqrt{(-4)^2 + (-10)^2} = \sqrt{116} = 10.77$

b) Then, find the equation of the line that goes through the two points above

$m = \frac{-10}{-4} = \frac{5}{2}$ $6 = \frac{5}{2}(5) + b$ $b = -\frac{13}{2}$

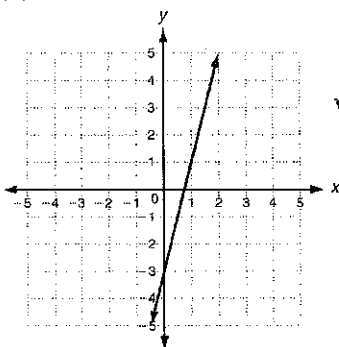
$y = \frac{5}{2}x - \frac{13}{2}$

$6 = \frac{25}{2} + b$

6. Identify which lines are parallel.

- I. $y = 4x$ II. $y = -\frac{1}{4}x - 3$ III. $12x - 3y = 6$ IV. $4(y + 6) = x - 3$

7.



$y = 4x - 3$

$-3y = -12x + 6$
 $y = 4x - 2$

$4y + 24 = x - 3$
 $4y = x - 27$
 $y = \frac{1}{4}x - \frac{27}{4}$

a) Write the equation of the line that is parallel to the given line through the (-2, 2).

$2 = 4(-2) + b \rightarrow b = 10$

$y = 4x + 10$

b) Write the equation of the line that is perpendicular to the given line through (4, -4).

$\perp m = -\frac{1}{4}$ $-4 = -\frac{1}{4}(4) + b$

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

$-4 = -1 + b$
 $b = -3$