

1.0 Geometry Pre-requisite Work

Name: Key

What is the slope and y-intercept of the following equations?

1.  $y = -3x + 7$

$m = -3$   $b = 7$

2.  $4x + y = 10$

$m = -4$   $b = 10$

3.  $-5x - 2y + 19 = 0$

$m = -\frac{5}{2}$   $b = \frac{19}{2}$

Are the following lines parallel, perpendicular, coincidental, or neither?

4.  $y = 2x + 6$

$3x + 6y = -12$

perpendicular

5.  $y = 3x - 1$

$3x - y = 0$

parallel

6.  $6x - 2y = 18$

$-2x + 5y - 12 = 0$

Neither

Find the slope between the following points.

7.  $(5, 4)$  and  $(-2, -7)$

$m = \frac{11}{7}$

8.  $(-7, 4)$  and  $(-7, -11)$

$\frac{-15}{0} = \text{undefined}$

9.  $(-2, 6)$  and  $(3, 8)$

$m = \frac{2}{5}$

Write the equation in slope intercept form that passes through the following points.

10.  $(3, -2)$  and  $(-1, 10)$

$y = -3x + 7$

Solve for x.

11.  $4(x - 7) = 8x + 8$

$x = -9$

Simplify the following radical

12.  $\sqrt{121}$

$11$

13.  $\sqrt{48}$

$4\sqrt{3}$

14.  $6\sqrt{24}$

$12\sqrt{6}$

Factor completely.

15.  $x^2 - 9x + 20$

$(x-5)(x-4)$

16.  $3x^2 - 75$

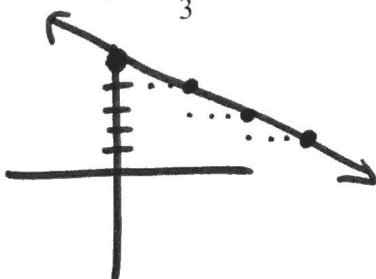
$3(x+5)(x-5)$

17.  $6x^2 + 13x + 5$

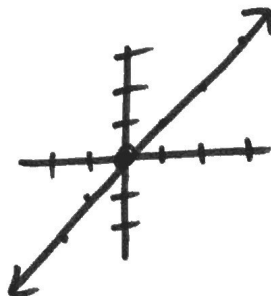
$(3x+5)(2x+1)$

Graph the following equations on the graph provided on the back of the paper.

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



19.  $y = x$



20.  $x = -4$

