Geometry Honors

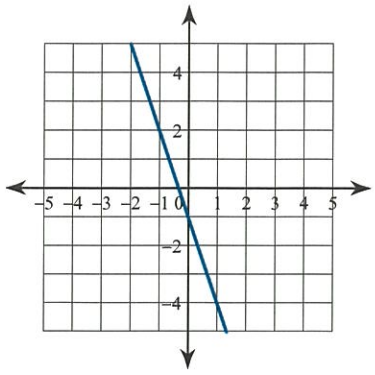
Name_____

Section 3.6 WS #1

Date_____ Period____

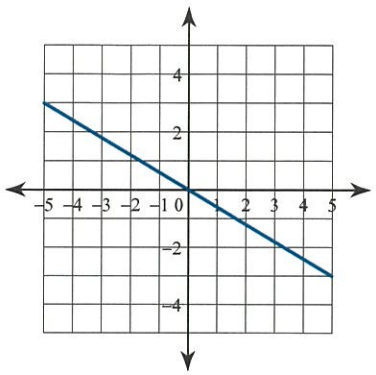
Write the slope-intercept form of the equation of each line.

1)



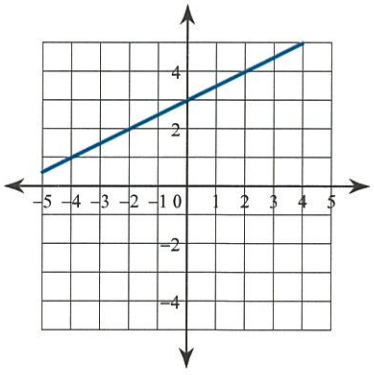
$y = -3x - 1$

2)



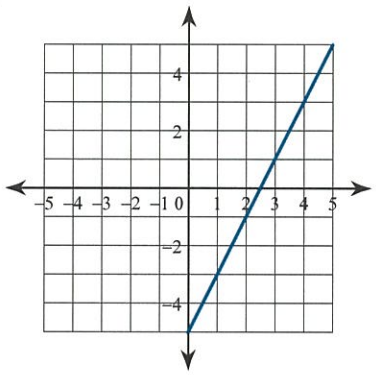
$y = -\frac{3}{5}x$

3)



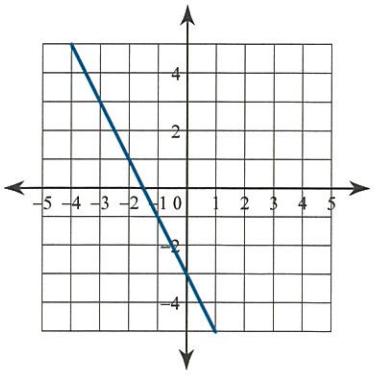
$y = \frac{1}{2}x + 3$

4)



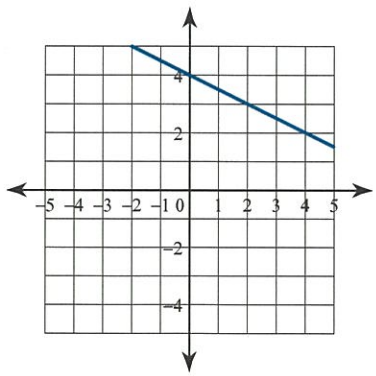
$y = 2x - 5$

5)



$y = -2x - 3$

6)



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

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

7) through: $(-5, 2)$ and $(-2, -5)$

$y = -\frac{7}{3}x - \frac{29}{3}$

8) through: $(-4, -3)$ and $(0, -3)$

$y = -3$

9) through: $(-5, 0)$ and $(4, -4)$

$y = -\frac{4}{9}x - \frac{20}{9}$

10) through: $(4, -3)$ and $(0, -2)$

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

Write the slope-intercept form of the equation of the line described.

11) through: $(1, 4)$, parallel to $y = 6x + 5$

$y = 6x - 2$

12) through: $(5, -4)$, parallel to $y = -\frac{4}{5}x + 5$

$y = -\frac{4}{5}x$

13) through: $(2, 3)$, parallel to $y = x + 5$

$y = x + 1$

14) through: $(5, -4)$, parallel to $x = 0$

$x = 5$

15) through: $(0, 2)$, perp. to $y = -4$

$x = 0$

16) through: $(4, 2)$, perp. to $y = 4x + 5$

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

17) through: $(1, -2)$, perp. to $y = \frac{1}{5}x + 4$

$y = -5x + 3$

18) through: $(2, 5)$, perp. to $y = -\frac{2}{3}x - 1$

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

Geometry Honors 3-6

Tell whether the two equations *intersect*, are *parallel*, are *perpendicular*, or are *coinciding*.

1. $4y + 6x = 4$
   $-6y - 4x = 1$

$4y = 4 - 6x$

$y = 1 - 3/2x$

$-6y = 1 + 4x$

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

intersecting

2. $2y - 7x = -4$
   $-7y - 2x = 3$

$2y = -4 + 7x$

$y = -2 + 7/2x$

$-7y = 3 + 2x$

$y = -3/7 - 2/7x$

perpendicular

3. $10y - 4x = 20$
   $2y = 5x + 4$

$10y = 20 + 4x$

$y = 2 + 2/5x$

$y = 5/2x + 2$

intersecting

Write an equation of the line (in slope intercept form) that fits each description.

1. A line through the point (2, -4) and is *parallel* to the line $5x - 3y = 12$

$-3y = 12 - 5x$

$y = -4 + 5/3x$

$m = 5/3$

$-4 = 5/3(2) + b$

$-4 = 10/3 + b$

$-22/3 = b$

$y = 5/3x - 22/3$

2. A line through the point (6, -4) and is *perpendicular* to the line $2x - y = 1$.

$y = 2x - 1$

$m = -1/2$

$-4 = -1/2(6) + b$

$-4 = -3 + b$

$-1 = b$

$y = -1/2x - 1$

3. A line through the point (4, -5) and is *parallel* to the line that passes through the points (-1, -5) (2, -6) $m = \frac{-1}{3}$

$-5 = -1/3(4) + b$

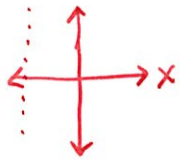
$-5 = -4/3 + b$

$-11/3 = b$

$y = -1/3x - 11/3$

4. A line through the point (-7, 5) and is *perpendicular* to the x-axis.

$x = -7$



5. A line through the point (-1, 6) and is *parallel* to the line $y = 3$.

$y = 6$

6. A line through the point (3, -4) and is *parallel* to the y-axis.

$x = 3$

7. A line through the point (2, 5) and is *perpendicular* to the line $y = -12$.

$x = 2$

8. A line through the point (-5,-7) and is *parallel* $2x - 7y = 14$

$-7y = 14 - 2x$

$y = -2 + 2/7x$

perp.

$-7 = -7/2(-5) + b$

$-7 = 35/2 + b$

$-49/2 = b$

$y = -7/2x - 49/2$

$y = 2/7x - 39/7$