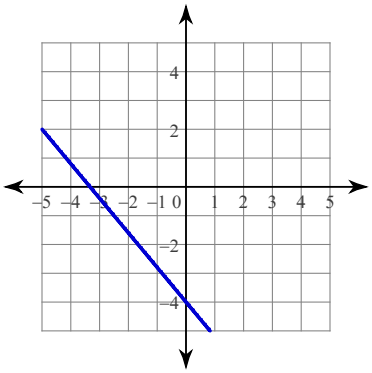
Algebra 2 Name_____

Writing Equations of Lines

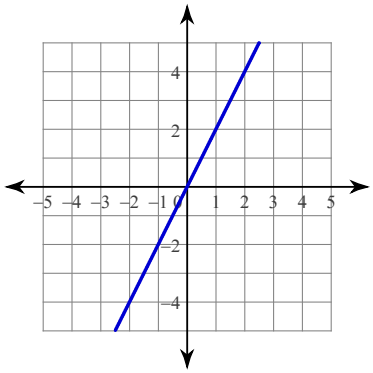
Date_____ Period____

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

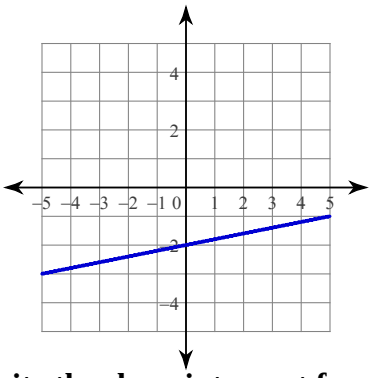
1)



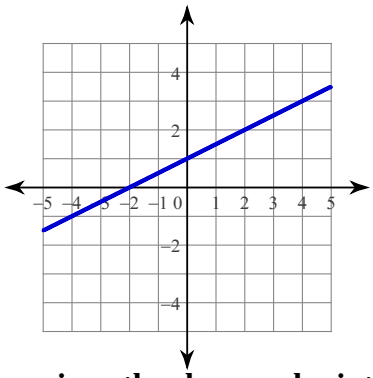
2)



3)



4)



Write the slope-intercept form of the equation of each line given the slope and y-intercept.

5) Slope = $-\frac{4}{3}$, y-intercept = 3

6) Slope = –1, y-intercept = –5

7) Slope = $\frac{5}{2}$, y-intercept = 5

8) Slope = 2, y-intercept = –2

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

9) $3x - y = 1$

10) $5x + y = -8$

11) $4x - y = -4$

12) $7x + 4y = -32$

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

13) through: $(3, 5)$, slope = $\frac{10}{3}$

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

15) through: $(-4, -3)$, slope = $-\frac{1}{8}$

16) through: $(3, -2)$, slope = $\frac{7}{2}$

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

17) through: $(3, -3)$ and $(-1, -3)$

18) through: $(0, -2)$ and $(1, -2)$

19) through: $(3, 4)$ and $(-5, -3)$

20) through: $(0, -1)$ and $(5, 2)$

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

21) through: $(5, 5)$ and $(0, 0)$

22) through: $(5, 2)$ and $(0, 1)$

23) through: $(2, -4)$ and $(2, 4)$

24) through: $(0, 1)$ and $(5, 3)$

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

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

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

27) through: $(5, 0)$, slope = $-\frac{2}{5}$

28) through: $(-4, 0)$, slope = $\frac{5}{4}$

Write the standard form of the equation of the line through the given points.

29) through: $(0, 5)$ and $(3, -4)$

30) through: $(1, 1)$ and $(0, -5)$