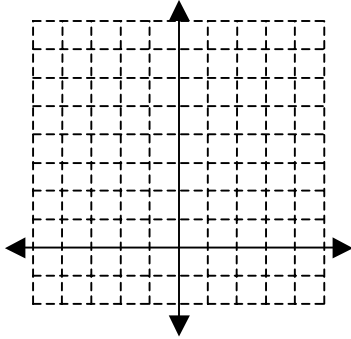# Algebra – Worksheet 3.13 – Writing an equation when given two points

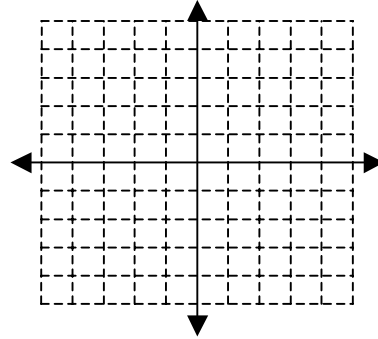Name: _____ Date: _____ Period: _____

Graph the line that passes through the points. Then write the equation of the line in slope-intercept form.

1.   (1, 8) and (-2, -1)

2.   (-4, -1) and (2, 2)

Use the slope formula to find the slope of the line between the given points.

3.   (-4, 1) and (2, -5)

4.   (2, -3) and (-3, 7)

Write the equation in slope-intercept form for the line with the given slope that contains the given point.

5.   slope = 1; (-2, 3)

6.   slope = -3; (-1, 6)

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

7.   (0, -5) and (3, 4)

8.   (2, 4) and (1, -2)

9.   (2, -2) and (-4, 1)

10.   (4, 3) and (-8, 0)

11. (9, -2) and (-3, 2)   12. (-3, -3) and (7, 2)

13. (1, 2) and (7, 2)   14. (5, -6) and (5, -3)

Review

15. Explain how to find the slope of the line if the equation is in standard form.

16. Explain how to find the *x*-intercept of the line if the equation is in standard form.

17. Explain how to write an equation of a line given the slope and one point on the line.

Solve for the variable in each of the following

18. $-4x + 3 = -5$ 19. $\dfrac{y}{3} + 1 = 5$ 20. $\dfrac{z+4}{3} = \dfrac{z-1}{2}$