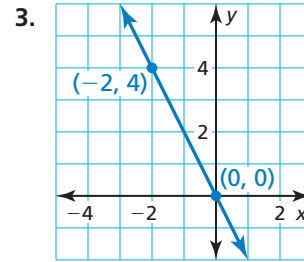
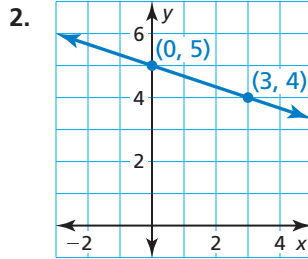
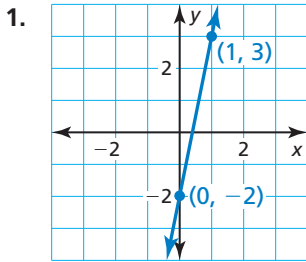


# 4.1–4.3 Quiz

Write an equation of the line in slope-intercept form. (Section 4.1)



Write an equation in point-slope form of the line that passes through the given points. (Section 4.2)

4.  $(-2, 5), (1, -1)$

5.  $(-3, -2), (2, -1)$

6.  $(1, 0), (4, 4)$

Write a linear function  $f$  with the given values. (Section 4.1 and Section 4.2)

7.  $f(0) = 2, f(5) = -3$

8.  $f(-1) = -6, f(4) = -6$

9.  $f(-3) = -2, f(-2) = 3$

Determine which of the lines, if any, are parallel or perpendicular. Explain. (Section 4.3)

10. Line  $a$  passes through  $(-2, 2)$  and  $(2, 1)$ .

11. Line  $a: 2x + 6y = -12$

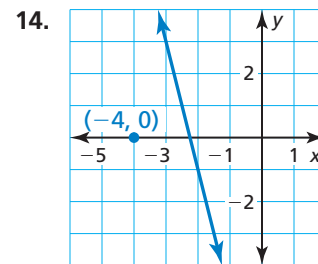
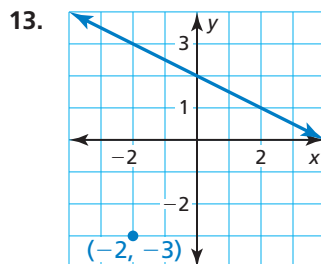
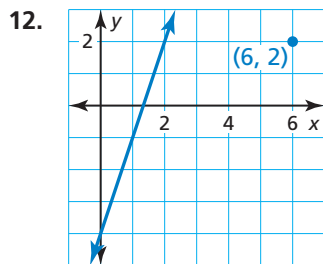
Line  $b$  passes through  $(1, -8)$  and  $(3, 0)$ .

Line  $b: y = \frac{3}{2}x - 5$

Line  $c$  passes through  $(-4, -3)$  and  $(0, -2)$ .

Line  $c: 3x - 2y = -4$

Write an equation of the line that passes through the given point and is (a) parallel and (b) perpendicular to the given line. (Section 4.3)



15. A website hosting company charges an initial fee of \$48 to set up a website. The company charges \$44 per month to maintain the website. (Section 4.1)

a. Write a linear model that represents the total cost of setting up and maintaining a website as a function of the number of months it is maintained.

b. Find the total cost of setting up a website and maintaining it for 6 months.

c. A different website hosting company charges \$62 per month to maintain a website, but there is no initial set-up fee. You have \$620. At which company can you set up and maintain a website for the greatest amount of time? Explain.

16. The table shows the amount of water remaining in a water tank as it drains. Can the situation be modeled by a linear equation? Explain. If possible, write a linear model that represents the amount of water remaining in the tank as a function of time. (Section 4.2)

Time (minutes)	8	10	12	14	16
Water (gallons)	155	150	145	140	135