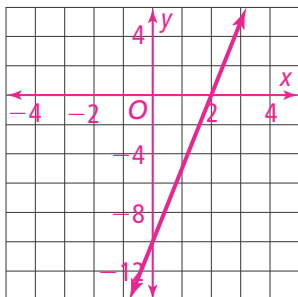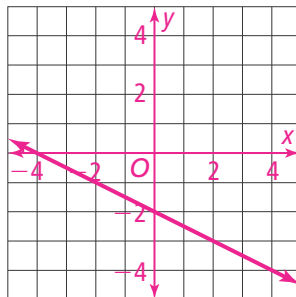## 2-3 Additional Practice

Standard Form

Graph the line that represents each linear equation.
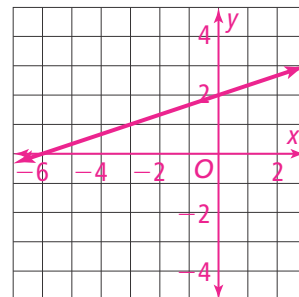
1. $-5x + y = -10$

2. $-3x - 6y = 12$

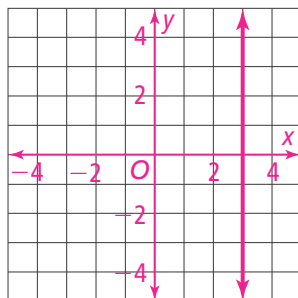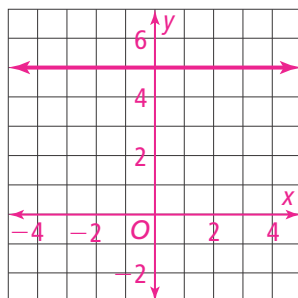
3. $4x - 12y = -24$

Graph the line that represents each linear equation.
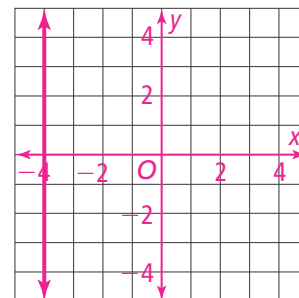
4. $5x = 15$

5. $-4y = -20$

6. $6x = -24$

What points represent the *x*- and *y*-intercepts of each equation?

7. $4x - 5y = 80$

(20, 0) and (0, −16)

8. $7x + 8y = 112$

(16, 0) and (0, 14)

9. $-8x + 12y = -144$

(18, 0) and (0, −12)

10. Find expressions for the slope and *x*- and *y*-intercepts for $Ax + By = C$, where *A*, *B*, and *C* are nonzero integers.

Slope = $-\dfrac{A}{B}$; *x*-intercept = $\dfrac{C}{A}$; *y*-intercept = $\dfrac{C}{B}$

11. A high school football team scores a total of 42 points by scoring touchdowns and field goals. Suppose each field goal is worth 3 points and each touchdown is worth 7 points.

a. Let *x* represent the number of field goals and *y* represent the number of touchdowns. Write an equation that models the total points scored in the game.
   Sample Answer: $3x + 7y = 42$

b. Identify and interpret the *x*- and *y*-intercepts.
   Sample Answer: The *x*-intercept is 14, which means that the team scored 14 field goals. The *y*-intercept is 6, which means that the team scored 6 touchdowns.