## Solve the equation.

**1.** 
$$23x - 8 - 14x = 10$$

**4.** 
$$-9 = 27 - 11p - 13p$$
 **5.**  $-3 + 5(x + 4) = 47$  **6.**  $6(2d - 1) + 13 = 19$ 

7. 
$$34a - 4(5a + 2) = 36$$

**10.** 
$$\frac{3}{5}(5m+15) = -12$$
 **11.**  $\frac{5}{8}(2p-1) = 32$  **12.**  $-\frac{7}{3}(3w-2) = -21$ 

**13.** 
$$5.8 + 3.5(z - 4) = 9.3$$

**2.** 
$$46m + 11 - 33m = -28$$
 **3.**  $5b - 17 - 13b = 7$ 

**5.** 
$$-3 + 5(x + 4) = 47$$

**7.** 
$$34a - 4(5a + 2) = 36$$
 **8.**  $5a - 4(3a + 7) = -21$  **9.**  $\frac{3}{4}(x - 5) = 12$ 

**11.** 
$$\frac{5}{8}(2p-1)=32$$

**13.** 
$$5.8 + 3.5(z - 4) = 9.3$$
 **14.**  $5.4 - 3.1(4m + 3) = 45.7$  **15.**  $16 = 6.5n - 3.3(2n - 5)$ 

**9.** 
$$\frac{5}{4}(x-5)=1$$

**12.** 
$$-\frac{7}{3}(3w-2) = -21$$

**15.** 
$$16 = 6.5n - 3.3(2n - 5)$$

## Find the value of x for the triangle or rectangle.

**16.** Perimeter 
$$= 32$$
 feet

$$x \text{ ft}$$
  $(x+7) \text{ ft}$   $3x \text{ ft}$ 

**17.** Perimeter = 
$$24$$
 meters

$$(x + 1) \text{ m}$$

- **18.** Class Reunion You are traveling 180 miles back to your home town for a class reunion. About 60 miles of the trip are through areas where the speed limit is 45 miles per hour and the rest of the trip is through areas where the speed limit is 55 miles per hour. Assuming that you can travel at the speed limits to get to the reunion, how long will it take you? Round your answer to the nearest tenth.
- 19. Retaining Wall You and two friends are building a retaining wall. The estimate for the number of blocks in the wall is 500 blocks. You and one of your friends have experience building retaining walls, so you each can install 20 blocks per hour. Your other friend, who is doing this for the first time, can install about 8 blocks per hour. You had a dentist appointment and showed up 1 hour after your friends started on the wall. How long will it take you to build the wall? Round your answer to the nearest hour. How many blocks will each of you install?
- **20.** Installing Shelves You are hanging 3 display shelves with the same width on a wall so that there is 18 inches of space above each shelf for placing items. Each shelf is 3 inches wide. You want the space from the ceiling to the top 18 inches of space and the space below the bottom shelf to a chair rail to be the same. Determine the distance from the ceiling to the bottom of each of the shelves so that you can install them. Explain how you got your answer.

