Write an equation or an inequality.

- **1.** The difference of twice a number c and 10 is no more than 42.
- **2.** The sum of 24 and three times a number v is equal to 56.
- The difference of 32 and the quotient of a number m and 7 is 80.
- The sum of three times a number b and 33 is at least 35.
- The difference of a number *m* and 4 is greater than 4 and less than 10.

Check whether the given number is a solution of the equation or inequality.

6.
$$11x - 4 = 18$$
; 2

7.
$$\frac{m}{6} + 8 = 1.5; 4.2$$

7.
$$\frac{m}{6} + 8 = 1.5; 4.2$$
 8. $\frac{2x}{5} + 4 = 10; 15$

9.
$$6n - 5 \ge 13; 4$$

10.
$$2.4c + 1.2 < 13; 15$$
 11. $\frac{5+x}{3} > 12; 31$

11.
$$\frac{5+x}{3} > 12; 31$$

Solve the equation using mental math.

12.
$$17 + x = 35$$

13.
$$42 - y = 28$$

14.
$$\frac{x}{9} = 11$$

15.
$$2x + 1 = 31$$

16.
$$17 - 3p = 11$$

17.
$$\frac{m}{2} - 3 = 11$$

- **18.** Video Game System You are saving money to buy a \$200 video game system. You earn \$20 a week for doing chores around the house. You get \$35 from a relative on your birthday. How many whole weeks will it take for you to have enough money to buy the system? You are charged 7% sales tax for the system. Will it take any longer to buy the system? Explain your reasoning.
- **19.** Collages You are creating a collage using two different textured papers. One paper costs \$.15 per sheet and the other costs \$.08 per sheet. You need a total of 12 sheets of paper without spending over \$1.50. Let t be the number of sheets of the less expensive paper.
 - **a.** Write an inequality that describes the situation. Your inequality should involve only one variable, t.
 - **b.** Give two different ways you can buy the paper.
- **20.** Football Cards You and your friend collect football cards. You tell your friend, "I have three times the number of football cards as you have." Your friend replies "You only have 80 more football cards than I have." How many football cards do each of you have?