

## 7.10A Write One Variable Equations and Inequalities

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- 1** Which equation fits the situation?  
Mike's test score was 20 points lower than Mark's. If Mark scored a 95 on the test which equation would give Mike's score?
- A**  $95 = p + 20$
  - B**  $p - 20 = 95$
  - C**  $90 = p + 5$
  - D**  $p - 95 = 20$
- 2** One hundred students go to the cafeteria to eat lunch. Six tables held the same amount of students while an additional 10 students stood in line. Which equation can be used to find the number of students sitting at each table?
- A**  $100 = 10x + 6$
  - B**  $100 + 6x = 10$
  - C**  $10x - 100 = 10$
  - D**  $6x + 10 = 100$
- 3** The Gardening Club is building a new garden area. They calculate that each of their 7 garden beds will hold the same number of strawberry plants. A separate plot will hold 15 strawberry plants. If the local nursery donates 85 strawberry plants, which of the following can be used to see if the plants can fit into the garden?
- A**  $7x = 15 = 85$
  - B**  $7x + 15 = 85$
  - C**  $15x + 7 = 85$
  - D**  $15x - 7 = 85$

- 4 Cameron bought a used car for \$4,500. He made a down payment of \$1,200 and agreed to pay the remaining balance in monthly payments of \$300 each.

Which equation can be used to find  $m$ , the number of months it will take Cameron to pay off his car?

- A  $4,500 = 1,200 + 300m$
- B  $4,500 = -300 + 1,200m$
- C  $4,500 = 300 + 1,200m$
- D  $4,500 = 1,200 - 300m$

- 5 Alyssa read 25 pages of a new book the first day she bought it. After the first day, she read 5 pages a day. If the book was 350 pages, which equation can be used to determine how many days it will take Alyssa to finish her book?

- A  $5x = 350$
- B  $5x - 25 = 350$
- C  $25x + 5 = 350$
- D  $5x + 25 = 350$

6

Tyler is cutting strips of wood that are each  $\frac{3}{4}$  inches long. He wants to cut enough strips so that he has a total length of  $9\frac{3}{4}$  inches if the strips are laid end to end. Tyler has already cut 3 strips of wood. Which equation can be used to find  $w$ , the number of strips of wood that Tyler will need to cut to have a total length of  $9\frac{3}{4}$  inches when the strips are laid end to end.

- A  $\frac{3}{4}w + 3 = 9\frac{3}{4}$
- B  $\frac{3}{4}w + 2\frac{1}{4} = 9\frac{3}{4}$
- C  $2\frac{1}{4}w + \frac{3}{4} = 9\frac{3}{4}$
- D  $\frac{3}{4}w + \frac{3}{4} = 9\frac{3}{4}$

**7** A paddle boat company charges \$15 rental fee plus \$12.75 per hour for rentals. If Jimmy has \$45, which inequality can he use to determine if he has enough money to rent a paddle boat for 4 hours?

**A**  $15 + 12.75x \leq 45$

**B**  $15 + 12.75x \geq 45$

**C**  $15x + 12.75 \leq 45$

**D**  $15x + 12.75 \geq 45$

- 8** Jeff bought a bottle of water for \$2. He also bought some hot dogs for \$3 each. Jeff did not spend more than \$14 on the hot dogs and the bottle of water. Which inequality can be used to find  $h$ , the number of hot dogs that Jeff could have bought?
- A**  $3h - 2 \leq 14$
  - B**  $3h + 2 \leq 14$
  - C**  $3h - 2 \geq 14$
  - D**  $3h + 2 \geq 14$

- 9** Lawrence's father gave him 200 baseball cards. Each week, Lawrence purchases 25 baseball cards to add to his collection.

Which inequality can be used to find  $w$ , the number of weeks after starting his collection when Lawrence will have more than 750 baseball cards in his collection?

- A**  $200w + 25 < 750$
  - B**  $25w + 200 < 750$
  - C**  $200w + 25 > 750$
  - D**  $25w + 200 > 750$
- 10** Gabriel must practice piano at least 15 hours a week. This week he has practiced 6 hours so far. Piano lessons are part of Gabriel's practice time. His teacher gives 2-hour lessons. Which inequality can be used to find  $x$ , the number of lessons Gabriel must attend this week?
- A**  $x + 6 \leq 15$
  - B**  $2x + 6 \leq 15$
  - C**  $x + 6 \geq 15$
  - D**  $2x + 6 \geq 15$