1. A movie theatre offers 30% off the price of a movie ticket to students from your school. The regular price of a movie ticket is $8.50. What is the discounted price that you would pay for a ticket?

   A. $2.55   **C.** $5.95

   B. $5.50   **D.** $8.20

2. You are comparing the prices of four boxes of cereal. Two of the boxes contain free extra cereal.

   - Box F costs $3.59 and contains 16 ounces.

   - Box G costs $3.79 and contains 16 ounces, plus an additional 10% for free.

   - Box H costs $4.00 and contains 500 grams.

   - Box I costs $4.69 and contains 500 grams, plus an additional 20% for free.

   Which box has the least unit cost? (1 ounce = 28.35 grams)

   F. Box F   **H.** Box H
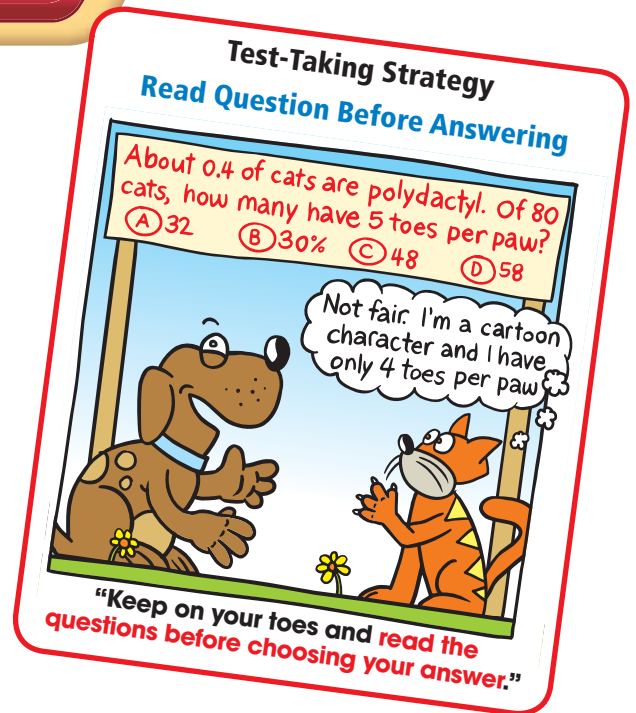
   G. Box G   **I.** Box I

3. James is getting ready for wrestling season. As part of his preparation, he plans to lose 5% of his body weight. James currently weighs 160 pounds. How much will he weigh, in pounds, after he loses 5% of his weight?

4. Which proportion represents the problem below?

   "17% of a number is 43. What is the number?"

   A. $\dfrac{17}{43} = \dfrac{n}{100}$ **C.** $\dfrac{n}{43} = \dfrac{17}{100}$

   B. $\dfrac{n}{17} = \dfrac{43}{100}$ **D.** $\dfrac{43}{n} = \dfrac{17}{100}$

5. Betty was simplifying the expression in the box below.

$$-\left|8 + (-13)\right| = -\left(\left|8\right| + \left|-13\right|\right)$$
$$= -\left|8 + 13\right|$$
$$= -\left|21\right|$$
$$= -21$$

What should Betty do to correct the error that she made?

F. Simplify $-\left|8 + (-13)\right|$ to get $-\left|-5\right|$.

G. Find the opposite of $\left|21\right|$, which is 21.

H. Find the absolute value of 8, which is -8.

I. Distribute the negative sign to get $\left|-8 + (-13)\right|$.

6. The students from the Math Club participated in a long-distance walk as a fundraiser. The number of hours each club member took to complete the walk is shown in the bar graph below.
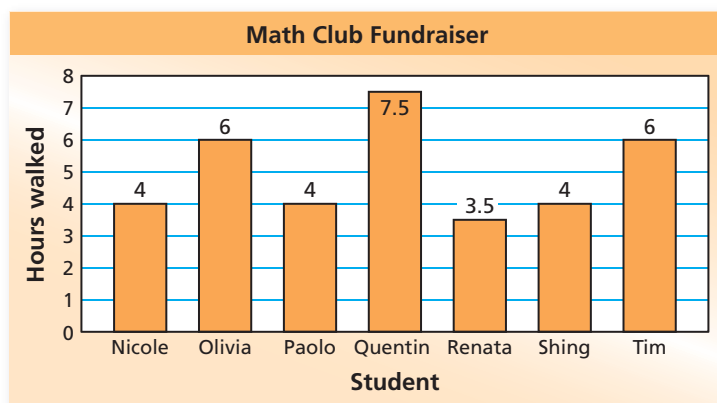
What is the mean number of hours the club members took to complete the walk?

A. 3.5 h

C. 5 h

B. 4 h

D. 7.5 h

7. A lighting store is holding a clearance sale. The store is offering discounts on all the lamps it sells. As the sale progresses, the store will increase the percent of discount it is offering.

You want to buy a lamp that has an original price of $40. You will buy the lamp when its price is marked down to $10. What percent discount will you have received?

8. A student scored 600 the first time she took the mathematics portion of her college entrance exam. The next time she took the exam, she scored 660. Her second score represents what percent increase over her first score?

F. 9.1%   **H.** 39.6%

G. 10%   **I.** 60%

9. Which inequality is represented by the graph on the number line below?

A. $x < -4$ **C.** $x > -4$

B. $x \le -4$ **D.** $x \ge -4$

10. You are planning to deposit $4000 into an account that earns 5% simple interest per year. You will not make any other deposits or withdrawals.

Think Solve Explain

Part A   How long would it take for your account to contain $4500? Show your work and explain your reasoning.

Part B   You would like the account to contain $5100 after 4 years. Would your initial $4000 deposit be large enough? Show your work and explain your reasoning.

11. Brad was solving the equation in the box shown.

What should Brad do to correct the error that he made?

F. Distribute -3 to get $6 - 15w$.

G. Distribute -3 to get $-6 - 15w$.

H. Add 6 to both sides to get $15w = -51$.

I. Add 6 to both sides to get $15w = -39$.

$$-3(2 - 5w) = -45$$
$$-6 + 15w = -45$$
$$9w = -45$$
$$\frac{9w}{9} = \frac{-45}{9}$$
$$w = -5$$

12. Which integer is closest to the value of the expression below?

$$-7\frac{1}{4} \cdot \left(-9\frac{7}{8}\right)$$

A. -70 **C.** 63

B. -63 **D.** 70