# Election Goon?

### Personal Math Trainer Online Assessment and Intervention

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### 5.1 Percent Increase and Decrease

Find the percent change from the first value to the second.

- **1.** 36; 63 \_\_\_\_\_
- **2.** 50; 35 \_\_\_\_\_
- **3.** 40; 72 \_\_\_\_\_
- **4.** 92; 69 \_\_\_\_\_

#### 5.2 Markup and Markdown

Use the original price and the markdown or markup to find the retail price.

- 5. Original price: \$60; Markup: 15%; Retail price: \_\_\_\_\_
- 6. Original price: \$32; Markup: 12.5%; Retail price: \_\_\_\_\_
- 7. Original price: \$50; Markdown: 22%; Retail price: \_\_\_\_\_
- 8. Original price: \$125; Markdown: 30%; Retail price: \_\_\_\_\_\_

#### 5.3 Applications of Percent

- **9.** Mae Ling earns a weekly salary of \$325 plus a 6.5% commission on sales at a gift shop. How much would she make in a work week if she sold \$4,800 worth of merchandise?
- **10.** Ramon earns \$1,735 each month and pays \$53.10 for electricity. To the nearest tenth of a percent, what percent of Ramon's earnings are spent on electricity each month?
- 11. James, Priya, and Siobhan work in a grocery store. James makes \$7.00 per hour. Priya makes 20% more than James, and Siobhan makes 5% less than Priya. How much does Siobhan make per hour? \_\_\_\_\_
- **12.** The Hu family goes out for lunch, and the price of the meal is \$45. The sales tax on the meal is 6%, and the family also leaves a 20% tip on the pre-tax amount. What is the total cost of the meal?

#### 0% ————

## ESSENTIAL QUESTION

**13.** Give three examples of how percents are used in the real-world. Tell whether each situation represents a percent increase or a percent decrease.

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# to Go On



#### 6.1 Algebraic Expressions

1. The Science Club went on a two-day field trip. The first day the members my.hrw.com paid \$60 for transportation plus \$15 per ticket to the planetarium. The second day they paid \$95 for transportation plus \$12 per ticket to the geology museum. Write an expression to represent the total cost for two days

for the *n* members of the club.

## 6.2 One-Step Equations with Rational Coefficients

**2.** 
$$h + 9.7 = -9.7$$

**3.** 
$$-\frac{3}{4} + p = \frac{1}{2}$$

**4.** 
$$-15 = -0.2k$$

**5.** 
$$\frac{y}{-3} = \frac{1}{6}$$

**6.** 
$$-\frac{2}{3}m = -12$$

**7.** 
$$2.4 = -\frac{t}{4.5}$$

#### 6.3 Writing Two-Step Equations

**8.** Jerry started doing sit-ups every day. The first day he did 15 sit-ups. Every day after that he did 2 more sit-ups than he had done the previous day. Today Jerry did 33 sit-ups. Write an equation that could be solved to find the number of days Jerry has been doing sit-ups, not counting the first day.

#### 6.4 Solving Two-Step Equations Solve.

**9.** 
$$5n + 8 = 43$$

**10.** 
$$\frac{y}{6} - 7 = 4$$

**11.** 
$$8w - 15 = 57$$
 **12.**  $\frac{g}{3} + 11 = 25$ 

**12.** 
$$\frac{g}{3} + 11 = 25$$

**13.** 
$$\frac{f}{5} - 22 = -25$$
 **14.**  $-4p + 19 = 11$  \_\_\_\_\_

**14.** 
$$-4p + 19 = 11$$

## **ESSENTIAL QUESTION**

15. How can you use two-step equations to represent and solve real-world problems?



#### 7.1 Writing and Solving One-Step Inequalities Solve each inequality.

**1.** 
$$n+7 < -3$$
 \_\_\_\_\_ **2.**  $5p \ge -30$  \_\_\_\_

**2.** 
$$5p > -30$$

**3.** 
$$14 < k + 11$$
 \_\_\_\_\_\_

**5.** 
$$c-2.5 \le 2.5$$
 \_\_\_\_\_\_ **6.**  $12 \ge -3b$  \_\_\_\_\_

**6.** 
$$12 > -3b$$

7. Jose has scored 562 points on his math tests so far this semester. To get an A for the semester, he must score at least 650 points. Write and solve an inequality to find the minimum number of points he must score on the remaining tests in order to get an A.

#### 7.2 Writing Two-Step Inequalities

8. During a scuba dive, Lainey descended to a point 20 feet below the ocean surface. She continued her descent at a rate of 20 feet per minute. Write an inequality you could solve to find the number of minutes she can continue to descend if she does not want to reach a point more than 100 feet below the ocean surface.

#### 7.3 Solving Two-Step Inequalities

Solve.

**10.** 
$$-\frac{d}{12} - 6 < 1$$

**11.** 
$$-6w - 18 \ge 36$$

**12.** 
$$\frac{z}{4} + 22 \le 38$$

**11.** 
$$-6w - 18 \ge 36$$
 \_\_\_\_\_\_ **12.**  $\frac{z}{4} + 22 \le 38$  \_\_\_\_\_ **13.**  $\frac{b}{9} - 34 < -36$  \_\_\_\_\_ **14.**  $-2p + 12 > 8$  \_\_\_\_\_

**14.** 
$$-2p + 12 > 8$$

#### ESSENTIAL QUESTION

15. How can you recognize whether a real-world situation should be represented by an equation or an inequality?