UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES

Lesson 1: Creating Linear Equations and Inequalities in One Variable

Assessment

Pre-Assessment

Circle the letter of the best answer.

1. Mina bought a plane ticket to New York City and used a coupon for 15% off the ticket price. The total cost of her ticket, with the discount, was \$253.30. What equation could she use to find the price of the ticket without the discount?

a.
$$0.15x = 253.30$$

c.
$$x = 253.30 + 0.15$$

b.
$$x - 0.15(x) = 253.30$$

d.
$$x + 0.15(x) = 253.30$$

2. Lucas bought a refrigerator. His total cost of \$1,331 included sales tax at the rate of 8% and an additional, untaxed delivery charge of \$35. How much sales tax did he pay?

3. Your cell phone plan allows you 400 minutes to talk per month. So far this month, you have used 265 minutes and you have 7 days left on this month's plan. Which inequality could you use to determine how many minutes at most you can use per day so that you don't go over your monthly plan minutes?

a.
$$7x + 265 < 400$$

c.
$$7x + 265 \le 400$$

b.
$$7x + 265 > 400$$

d.
$$7x + 265 \ge 400$$

4. Sydney has a \$75 mall gift card. She wants to buy a sundress and a movie ticket. The movie ticket with tax costs \$11.50. The sales tax on the sundress will be 4%. How much can the ticketed price of the sundress be?

5. Raphael earns \$10 per hour at a pet shop. He's saving to buy a new smartphone, which costs \$369. He currently has \$150 saved. Which inequality describes the number of hours he must work to reach his goal?

a.
$$369 \le 10x + 150$$

c.
$$150 \le 10x + 369$$

b.
$$369 \ge 10x + 150$$

d.
$$150 \ge 10x + 369$$