Problem Solving

LESSON 2-1 Variables and Expressions

Write the correct answer.

1. To cook 4 cups of rice, you use 8 cups of water. To cook 10 cups of rice, you use 20 cups of water. Write an expression to show how many cups of water you should use if you want to cook \( c \) cups of rice. How many cups of water should you use to cook 5 cups of rice?

2. Sue earns the same amount of money for each hour that she tutors students in math. In 3 hours, she earns $27. In 8 hours, she earns $72. Write an expression to show how much money Sue earns working \( h \) hours. At this rate, how much money will Sue earn if she works 12 hours?

3. Bees are one of the fastest insects on Earth. They can fly 22 miles in 2 hours, and 55 miles in 5 hours. Write an expression to show how many miles a bee can fly in \( h \) hours. If a bee flies 4 hours at this speed, how many miles will it travel?

4. A friend asks you to think of a number, triple it, and then subtract 2. Write an algebraic expression using the variable \( x \) to describe your friend's directions. Then find the value of the expression if the number you think of is 5.

Circle the letter of the correct answer.

5. The rupee is the currency in Pakistan. In 2002, 1 United States dollar was worth 60 rupees! How many rupees were equivalent to 3 United States dollars?
   - A 3
   - B 2
   - C 180
   - D 60

6. The peso is the currency in Mexico. In 2002, 1 United States dollar was worth 9 pesos. How many pesos were equivalent to 5 United States dollars?
   - F 45
   - G 4
   - H 14
   - J 54