

**NAME** \_\_\_\_\_ **DATE** \_\_\_\_\_ **PER.** \_\_\_\_\_

### **EQUATIONS OF FUNCTIONS**

**A book club charges an annual fee of \$25 and \$9.50 for each book that is purchased.**

1. Write a function to find the annual cost,  $A$ , for purchasing  $b$  books.

Write the equation: \_\_\_\_\_ Write in function notation: \_\_\_\_\_

2. What would be the dependent quantity? \_\_\_\_\_

3. What would be independent quantity? \_\_\_\_\_

4. What would be the annual cost of purchasing a book each month?

Equation: \_\_\_\_\_

5. How many books would be purchased if the annual cost was \$177.00?

Equation: \_\_\_\_\_

**When the meter in a taxi is first turned on, it reads \$2.20. As the taxi travels, \$1.90 is added for each mile driven.**

6. Write a function to find the total cost of the taxi ride,  $T$ , for traveling  $m$  miles.

Write the equation: \_\_\_\_\_ Write in function notation: \_\_\_\_\_

7. What would be the dependent quantity? \_\_\_\_\_

8. What would be independent quantity? \_\_\_\_\_

9. What is the value of  $T(22)$ ?

Meaning of this question in words: \_\_\_\_\_

$T(22) =$  \_\_\_\_\_

10. How many miles were traveled if the taxi ride cost was \$26.90?

Equation: \_\_\_\_\_

Answer: \_\_\_\_\_

11. Joseph needs to travel between 5 and 10 miles to reach his destination. What inequality represents the range in dollars,  $d$ , he will have to pay to ride in this taxi?

**REVIEW. Show work on ALL problems.**

12. One house painter charges an initial fee of \$25, plus \$15 per hour. A second painter charges \$25 per hour. How many hours would it take for the charge of the second painter to be the same as the charge of the first painter?

Equation: \_\_\_\_\_

- A. 2.5
- B. 2
- C. 1.5
- D. 1

13. On her vacation, Mary exchanges 150 U.S. dollars for Mexican pesos. The exchange rate that day is about 10.7 Mexico pesos for 1 dollar. Approximately how many pesos will Mary receive?

Equation: \_\_\_\_\_

- A. 1605
- B. 1510
- C. 161
- D. 0.07