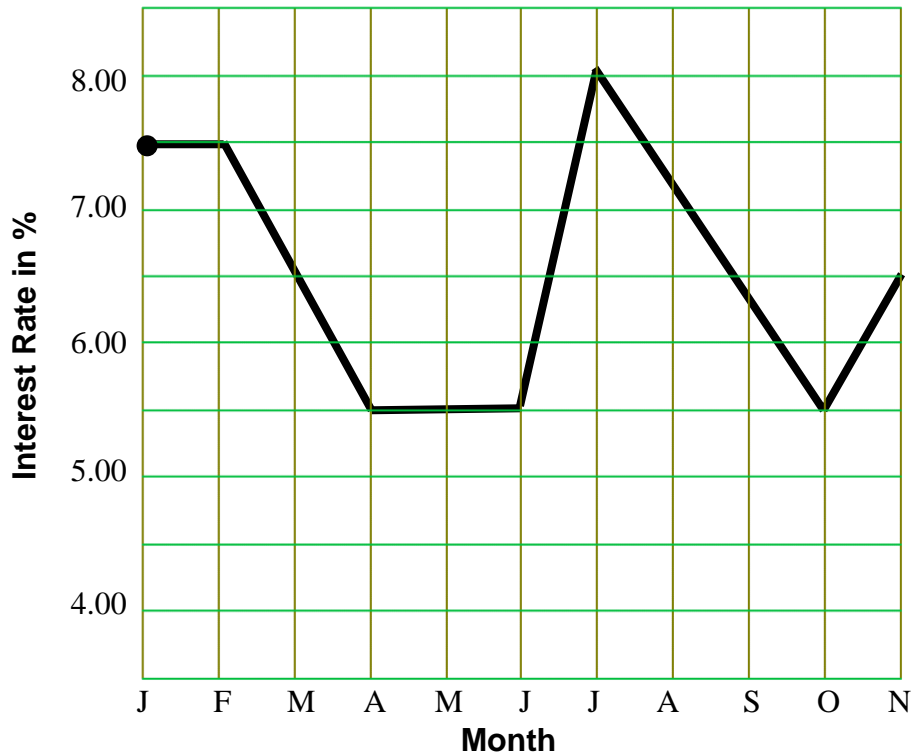


ANALYZING GRAPHS OF FUNCTIONS

The graph describes the history of interest rates from January to November.



1. Write the ordered pair in words: _____

2. Independent variable: _____

Dependent variable: _____

3. What is interest rate in April? _____

4. When is the interest rate 8%? _____

5. Does this relation represent a function? Yes or No

6. Which of the following conclusions is NOT true?

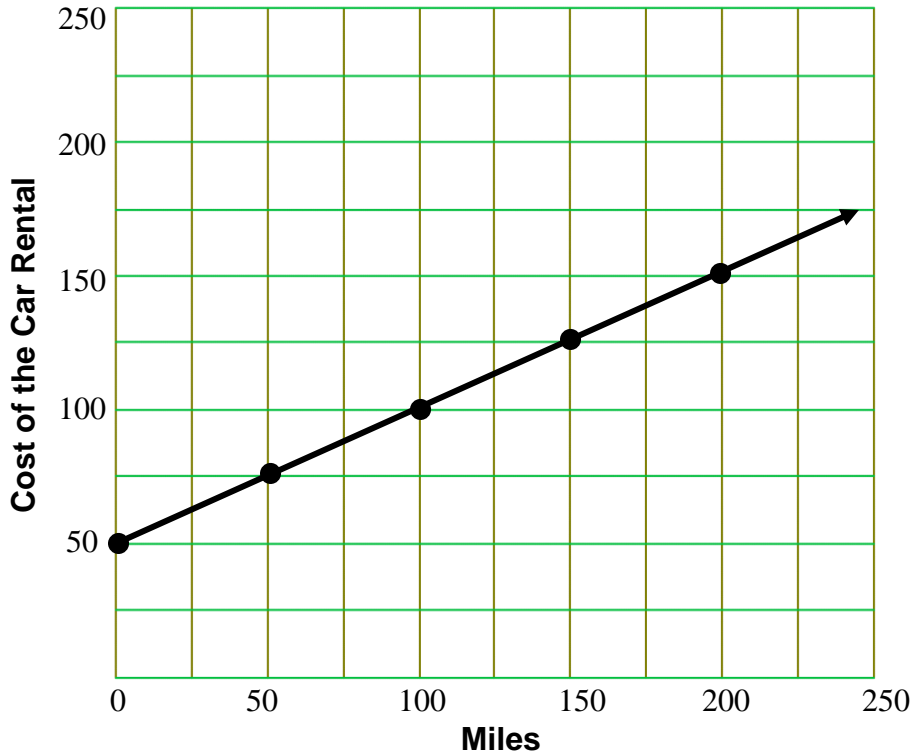
A. Interest rates remained constant between April and June.

B. The interest rates were at their highest in July.

C. Interest rates from February to April declined.

D. Interest rates were increasing in September.

Rick rents a car for one day for \$50 plus \$0.50 per mile. The graph below describes the cost of the car rental.



7. The _____ DEPENDS ON _____.

8. Find the value of $C(200) =$ _____

9. Find the value of "m" when $C(m) = 75$: $m =$ _____

10. What does the ordered pair (150, 125) mean for this function?

11. Does this relation represent a function? Yes or No

A personal trainer at a local gym charges the following a fee for a one-hour training session based on the number of people. The relationship is described by the function $C = 4n + 16$, where C is the cost and n represents the number of people.

12. Complete the table using your calculator:

Number of people	1	2	4	7
Cost				

13. Write the ordered pairs from the table above: _____

14. The _____ DEPENDS ON _____.

15. Find the cost of a one-hour training session for 10 people. _____

16. Find the value of $C(6)$. _____

17. Find the number of people in the training session if the trainer charges \$64. _____

18. If $C(n) = 96$, then $n =$ _____

19. What does the ordered pair $(15, 76)$ mean for this function?

_____ 20. Mr. Rodriguez purchased a new car for \$21,000 including taxes and insurance. If he makes monthly payments of \$305, which equation best describes r , the remaining balance after he makes p payments?

A. $r = 21000 + 305p$

C. $r = 21000(305 - p)$

B. $r = 21000p - 305p$

D. $r = 21000 - 305p$

_____ 21. Susie makes a chart comparing the amount of rain each month and the height of her lawn in inches. What is the independent quantity in this relationship?

A. The amount of rain each month

C. The amount of sunny days in the month

B. The height of her lawn

D. Cannot be determined

_____ 22. The number of ferryboat trips, $f(c)$, needed to transport c cars in 1 day can be found using the function $f(c) = \frac{c}{20}$. If there are no more than 5,000 cars transported by ferryboat daily, what is the range of the function for this situation?

A. The set of all integers greater than or equal to 5,000

B. The set of all integers from 0 to 5,000

C. The set of all integers greater than or equal to 250

D. The set of all integers from 0 to 250