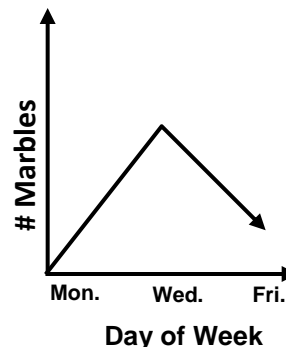NAME_____DATE_____PER._____

Retest Review - Functions Part 2

Use the graph to the right for problems 1 – 3.

1. Write a brief description explaining the situation in the graph.

2. Identify the **dependent** variable.

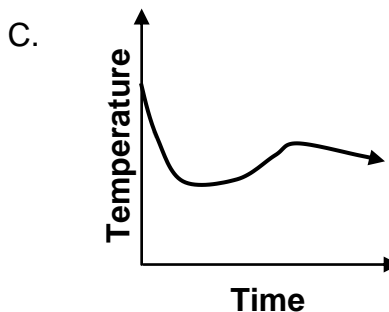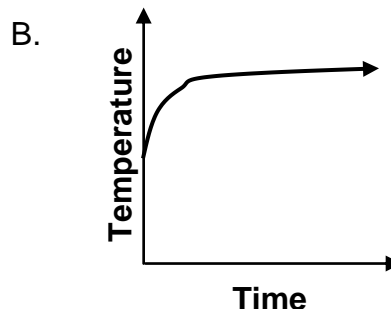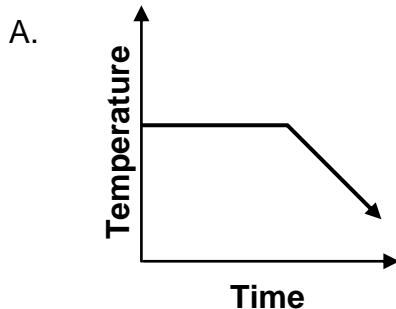3. Identify the **independent** variable.

Choose the correct answer for the question that follows.

4. _____

Which graph best matches the following situation:

Your body temperature rises as you exercise.

A.

B.

C.

5. Callie is making an isosceles triangle to use as a model in math class. Its perimeter will be 24 inches. Callie uses the equation $b = 24 - 2s$ to find b, the length of the triangle's third side, in terms of s, the length of each of its two congruent sides. What is the dependent variable in this equation?

_____

6. The cost to rent bowling shoes and to bowl games is represented by the relationship $C = 2.99g + 3$ where C represents the total cost and g represents the number of games played. What is the independent quantity in this relationship?

_____

7. Carina wants to sell hot chocolate at the football game. She knows that there is a relationship between the number of cups of hot chocolate she sells and the temperature outside. What is the independent quantity in this relationship?

_____

8. A relation exists between the number of buses needed for a school trip and the number of students going on the trip. In this relation, what is the dependent variable?

_____

Suppose the total cost, *C*, of renting a car is $25 per day, d, plus an initial fee of $100.

9. Write a function that best describes this relationship if *d* represents the number of days the car is rented.

_____

10. What would be the total cost of renting a car for 9 days?

_____

11. Find the number of days you could rent a car for $275.

_____

The table below shows the relationship between total tuition costs, T, and the number of semester hours taken at Blinn College.

semester hours taken, h	total tuition cost, T
1	553
2	581
3	609
4	637

_____12. Which statement is true?
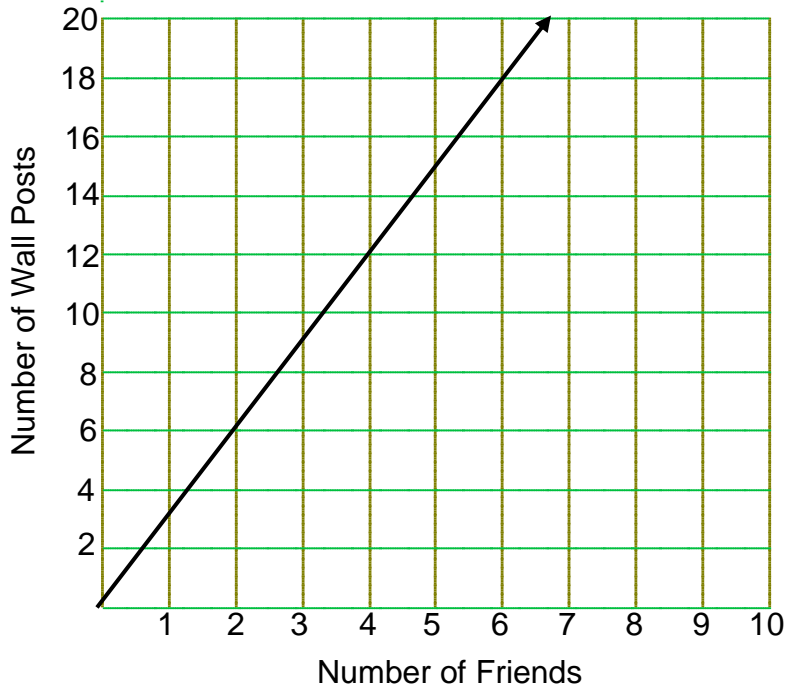
    A. The hours taken depends on the total tuition costs

    B. The total tuition cost depends on the amount of fees charged.

    C. The total tuition cost depends on the hours taken.

    D. Cannot be determined

13. What are the ordered pairs that represent this relation?

14. The function that would represent this relationship is $T(h) = 28h + 525$. How many semester hours could a student take if the tuition costs were $917?

15. If you took 16 hours, what would be the tuition costs?

Kianna has a Facebook page. The graph below represents P(n), where "n" is her number of friends and "P" is the number of wall posts. Use the graph to answer the questions below.

16. _____depends on _____

17.   Find the value of P(2) = _____

18. When P(n) = 18, the value of n = _____

Answers in random order (except for #1):

325	14	6	C(d) = 25d + 100
B	B	973	Number of Wall Posts
{(1, 553), (2, 581), (3, 609), (4, 637)}	temperature	7	Number of Friends
Number of students	6	C	Day of the Week
# Marbles			