Retest Review: MAKING CONNECTIONS

The total bill for each customer at the lemonade stand is a function of the number of glasses of lemonade purchased. This relationship can be represented by
$f(x)$ = {(1, $2.50), (2, $5.00), (3, $7.50), (4, $10.00)}.

1. The total bill depends on _____.

2. Complete the table

| Number of Glasses, x	Total Bill, y

3. The independent quantity is _____

4. The dependent quantity is _____

5.   Write a function to represent the relationship between "b", the total bill for "g" number of glasses.

_____

6. If the customer spent $22.50 at the lemonade stand, how many glasses of lemonade did they purchase?

7. Which mapping diagram best represents the function $f(x) = -2x^2 - 2$ when the domain of the function is {-2, 0, 1}?
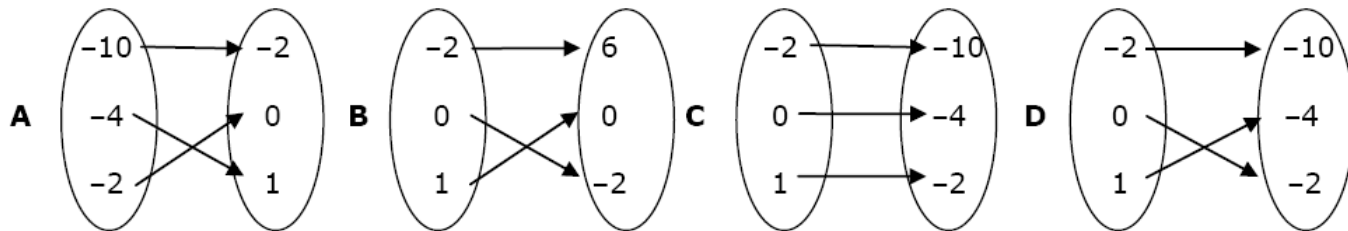
8. The table below shows the relationship between the total tuition costs, T and the number of semester hours taken at Cambridge College. Write the equation that represents this data.
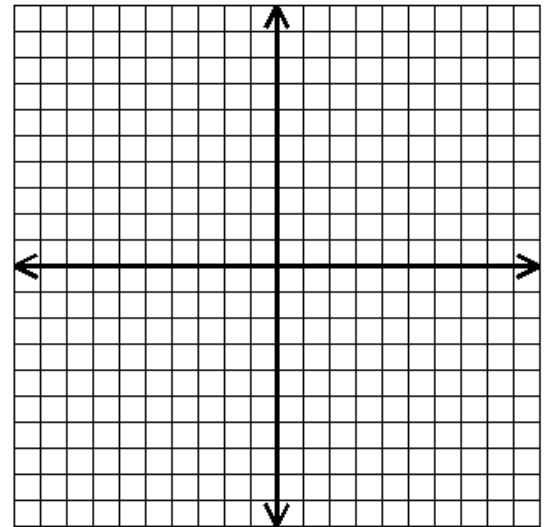
Semester Hours Taken, h	Total Tuition Costs, T
3	685
6	820
9	955
12	1090

9. The figure below shows a pattern. Find the expression that could be used to determine the number of triangles in the nth figure.
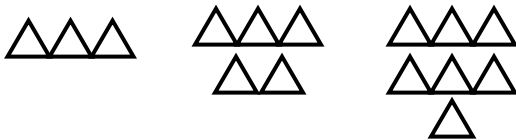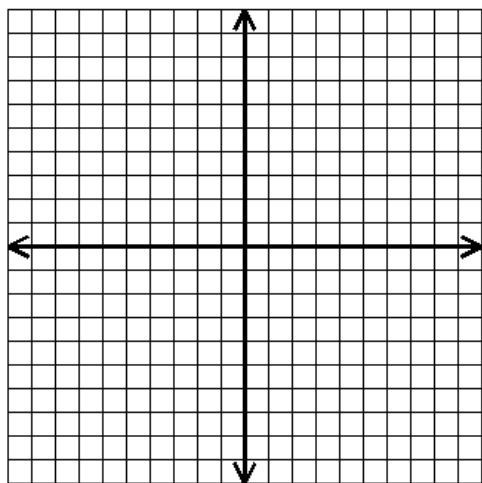

10. How many triangles would there be in the 8th figure of the pattern shown in #9?

11. Graph $5x + 4y = -12$

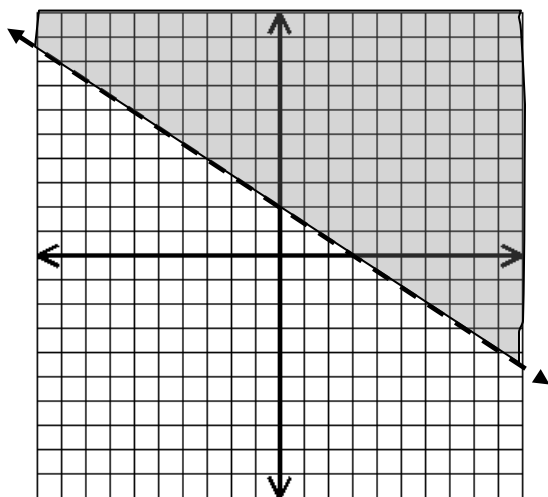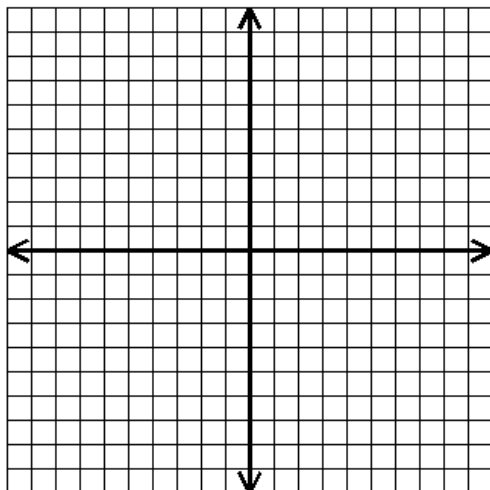

12. Find the x and y intercepts of $6x - 3y = 18$.

13. Graph the inequality 4x – 3y ≥ -12

14. Write the inequality that is represented by this graph.

15. Use the grid to graph y < x + 4. Which coordinate point represents a solution of this inequality?

A. (-8, 2)   C. (-2, 2)

B. (2, 0)   D. (0, 6)