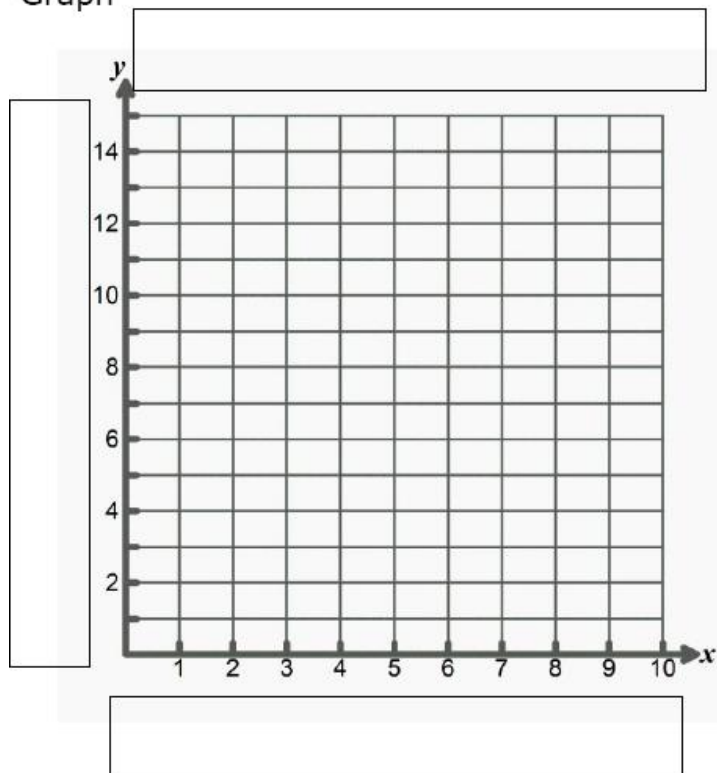**MAKING CONNECTIONS: FUNCTIONS**

The price of a small pizza is $6.00 plus $0.75 per topping. Complete each representation for this scenario below.

Graph

Number of Toppings, x	Total Cost, y
0	
1	
2	
3	
4	
5	
6	
7	
8	

1. The independent quantity is _____

   The dependent quantity is _____

   The total cost of the pizza depends on _____.

2. Write a function to represent the relationship between "c", the cost of the pizza, and "t" the number of toppings.

   _____

3. What value represents the rate of change?_____

   Meaning of the rate of change _____

4. What value represents the y-intercept?_____

   Meaning of the y-intercept_____

Rewrite the function from #2: _____
Use it to answer the following questions.

5. If you want 5 toppings and double each topping what will the pizza cost?_____

6. Suppose you have $15 to spend on pizza. How many toppings can you order?

_____

7. Suppose the price of each topping changed to $0.50.

How would this change the equation?_____

New Function:_____

Effects on the graph:_____

8. Suppose the price of a pizza with no toppings was changed to $5.00 and the price of each topping remained $0.75.

How would this change the equation?_____

New Function:_____

Effects on the graph:_____

With your $15, you can now afford _____ toppings.