STATION 1

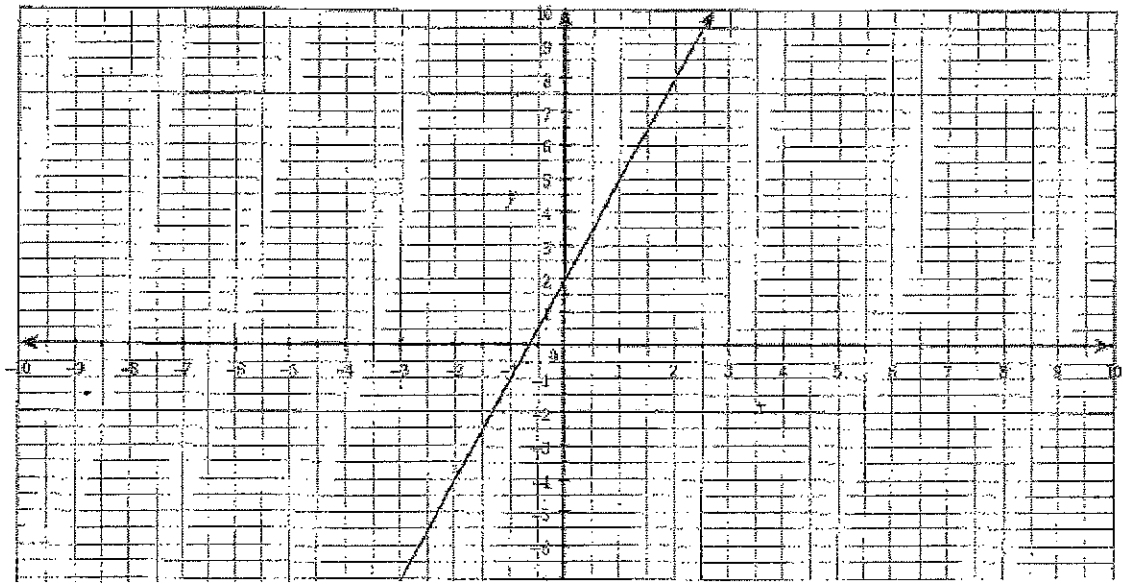
NAME_____

There are two functions given below. Analyze each function and answer the questions that follow.

Function 1:

x	0	3	5	6	8
y	3	9	13	15	19

Function 2:



2. Describe in words the rate of change for each function.

   Function 1: _____

   Function 2: _____

3. Which function has the greater y-intercept? _____

   How do you know?

4. What is the algebraic equation for Function 1? _____

5. What is the algebraic equation for Function 2? _____

6. Propose a real-world scenario for Function 1.

7. Propose a real-world scenario for Function 2.

STATION 2

NAME_____

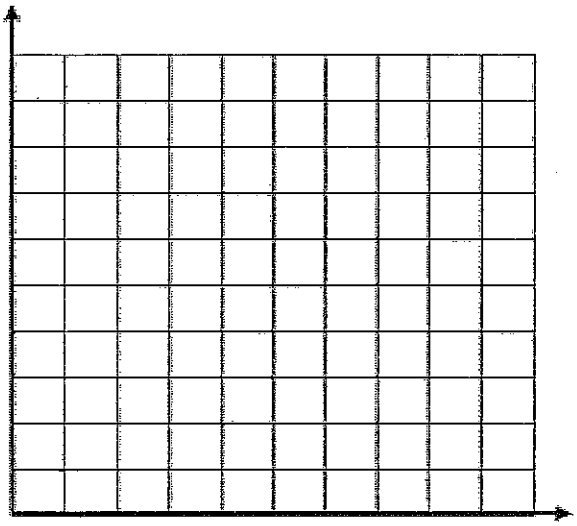
You will be given a number cube, spaghetti noodles, graph paper, and a ruler. For problems 1 and 2, you are given an equation in slope-intercept form.

1. As a group, roll the number cube. Write the result in the first row of the x-value column below. Repeat this process until all the rows of the x-value contain a number.

   Work together to complete the table of x- and y-values based on the equation $y = 2x + 3$.

x-value	y-value

2. Graph the data from the table on the grid at the right.



3. Use a spaghetti noodle to graph a line that has a slope of 3 and passes through the point (1, 3). How can you use this graph to find the equation of the line?

4. Write the equation of this line in slope-intercept form. (*Hint*: Use $y = mx + b$.)

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5. Use a spaghetti noodle to graph a line that has a slope of –2 and passes through the point (4, 6). How can you use this graph to find the equation of the line?

6. Write an equation of this line in slope-intercept form. (*Hint*: Use $y = mx + b$.)

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STATION 3

NAME_____

Analyze the equation and the scenario given below. Use these to answer the questions that follow.

Function 1: $y = -\frac{1}{2}x - 2$

Function 2: Omar owes his mother $4. She tells him that for each day he does not pay her back she is going to charge him 25 cents.

1. Which function(s) have a negative rate of change? _____

   Explain your thinking.

2. Which function has the greater y-intercept? _____

   Explain your thinking.

3. Create tables for Functions 1 and 2 below.

Function 1

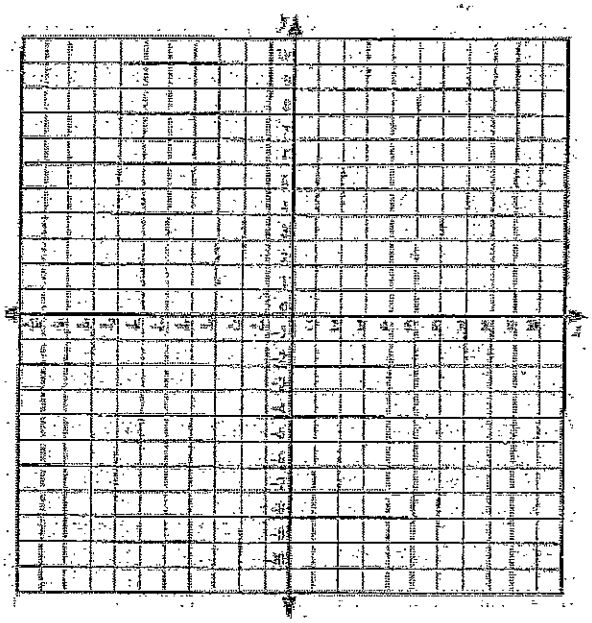
x	y

Function 2

x	y

4. How do the tables support your answers to #1 and #2?

5. Graph both functions on the same coordinate plane.



6. How do the graphs support your answers to questions 1 and 2?