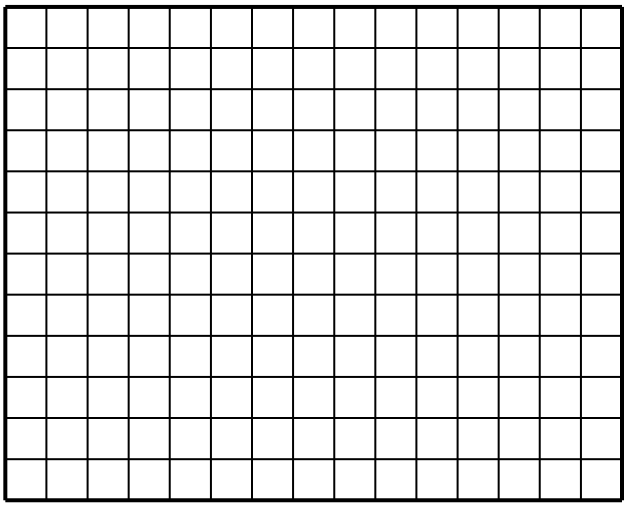
Name:_____Date:_____Period:___

Models All Around
Reflect and Apply

- *You will be using 3 different models for this activity, a table model, a graph model, and a formula model.*

A stack of 3 nickels is 6 mm high. Fill in the table below and create a scatter plot on the graph of your data. Be sure to label and scale the axes on the graph.

# of nickels in a stack	Height of the stack
6	
9	
12	
	36
24	
32	
	70



1. What is the height of a single nickel? _____

2. Create a formula model for your data. Make sure to declare your variables.
   _____

3. Use your formula model to predict values for the following: (Show your calculations!)

   a. The height of a stack of 65 nickels. _____

   b. The height of a stack of 120 nickels. _____

   c. If a stack of nickels is 90 mm high, how many nickels are in the stack? _____

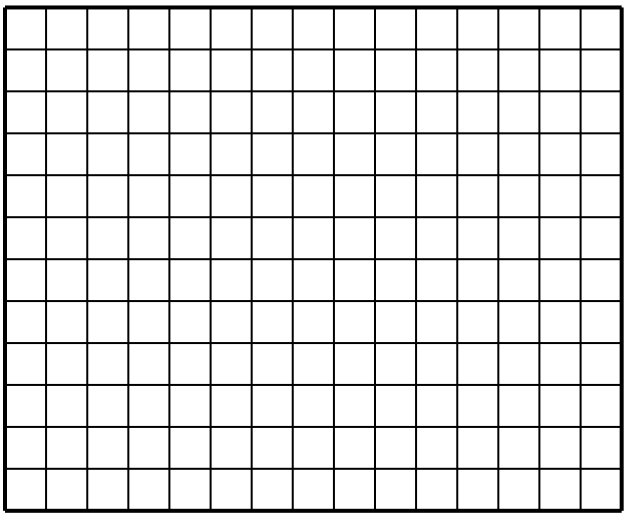
d. If a stack of nickels is 300 mm high, how many nickels are in the stack? _____

4. What does the ordered pair (25, 50) mean for this situation?

_____

5. Select an item in your home that can be stacked. Create a model for the stacking of this item using a table, a graph, and a formula. Be sure to provide a description of the item being stacked and the meaning of the variables in your formula. Also, be sure we know the units in which you are measuring. Don't forget to label and scale the axes on your graph.

# of items	Height of stack Units: _____



Description of the items being stacked: _____

Formula Model: _____

Meaning of the variables in your formula:

_____ _____

Write a question that could be answered by using any of your three models.

_____

_____

Answer the question you listed above and tell which model you used to answer it.

_____

_____