Graphing Assessment 2

Name: _____

A physics student is interested to find out how much mass of a quarters ($0.25) have. To do so she grabs a bunch of quarters and places them **in a cup** on a scale.   She gathers the following data.

# of Quarters	Mass (g)
1	16
4	34
8	58
10	70
12	82

1. Create a graph of Mass vs. Number of Quarters (mass on the vertical axis and # of quarters on the horizontal axis). Don't forget to label and scale your graph, plot your points, and draw a best-fit line. S3
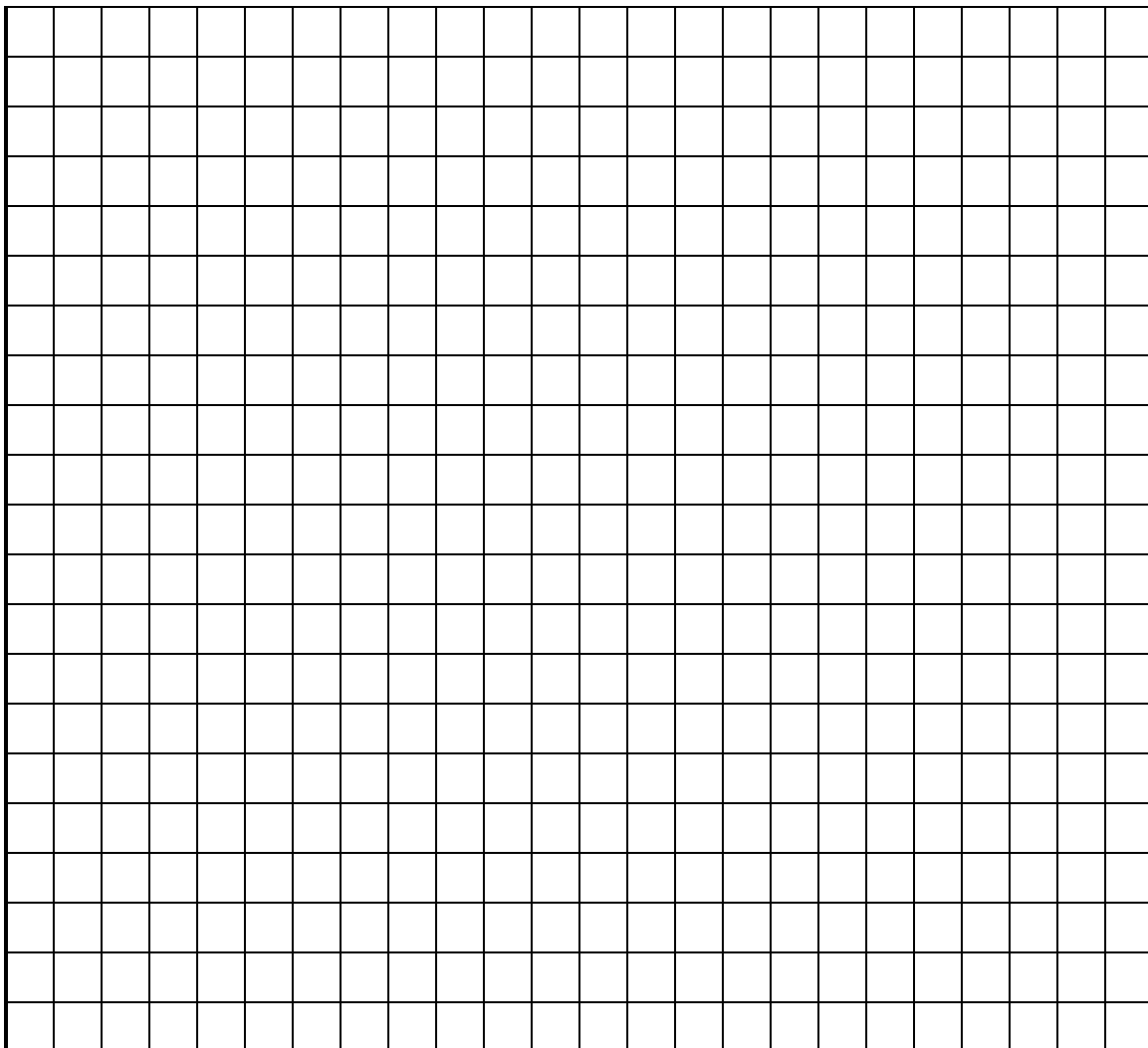
2. Write a **sentence** describing the general **relationship** between mass and # of quarters. S4

3. What is the **value** and **units** of the **slope** of the graph? Show work! S5

4. What is the **meaning** of your slope? S5

5. What is the approximate **value** and **unit** of your vertical-intercept? S6

6. What does the vertical-intercept on your graph **mean** about the situation? S6

7. Write an equation that would allow you to determine the mass if you knew the number of quarters. S7

8. Using your equation from the previous question determine the total mass of 6 quarters in the cup. S8

9. Using your equation from the previous question determine the number of quarters that are in a cup that has a total mass of 76 g. S8