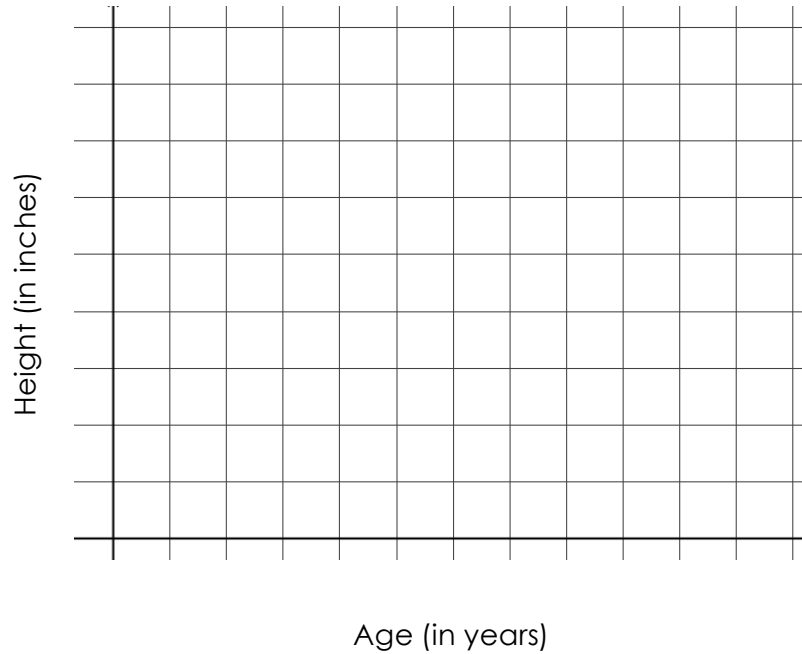**Mod 9 Test #2 Review**

Number _____ Name _____ Period _____ Score _____

1) The table below shows the height of people and their age. Plot these points on the graph provided.

| Age (in years)	Height (in inches)
7	48
8	51
9	52
11	56
15	60
17	61
18	63

Height (in inches)

Age (in years)

2) Use a calculator to determine the linear regression line. Then sketch it on the graph. Write the equation of the line below.

3) Use a calculator to determine the correlation coefficient of the data above.

4) Based on the correlation coefficient, what type of correlation exists in the relationship between age and height.

5) What is the slope of your linear regression line? _____ What does it mean in the context of this relationship?

6) What is the y-intercept of your linear regression line? _____ What does it mean in the context of this relationship?
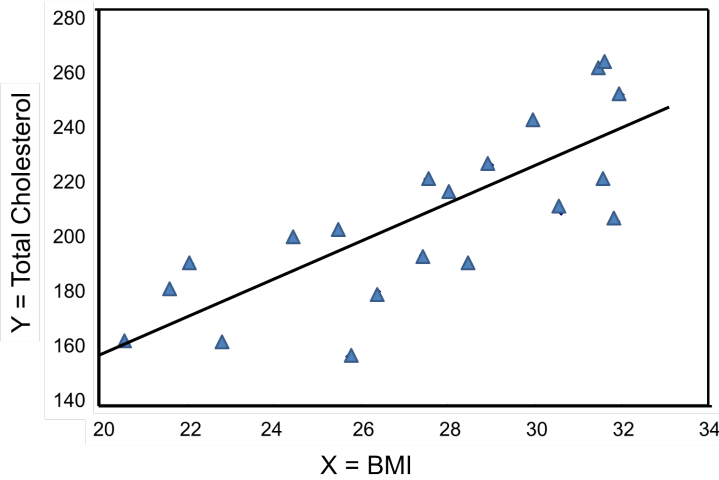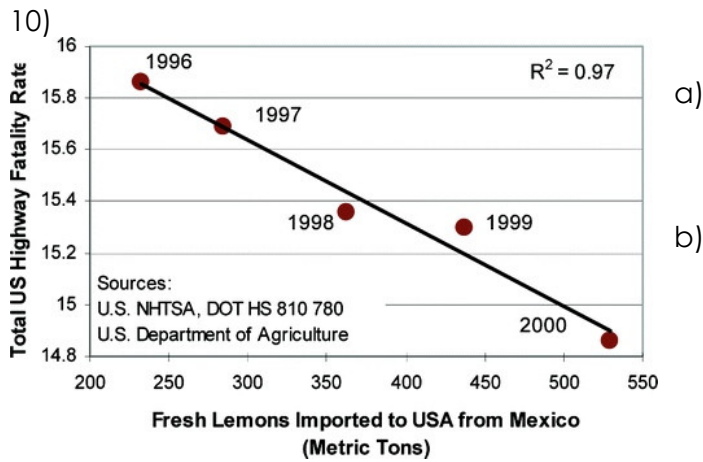
The equation for the linear regression line for this data is $y = 0.1x + 158$.

7) What does the slope mean in the context of this relationship?

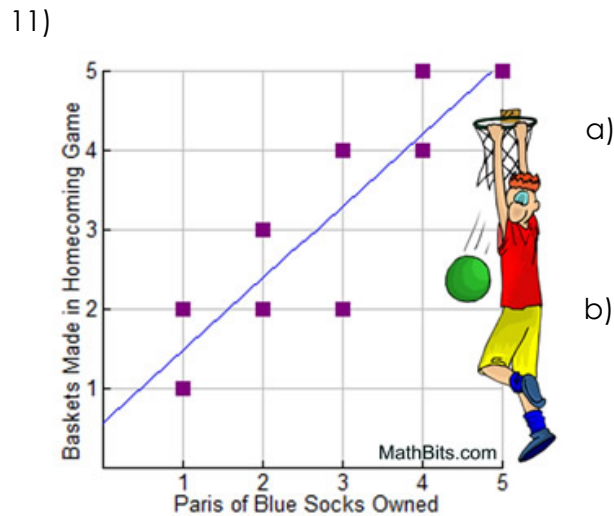8) What does the y-intercept mean in the context of this relationship?

9) Estimate the correlation coefficient of this data. Justify your estimation.

The graphs below show a high correlation. For each graph, a) interpret what the slope of the line means, then b) explain why this correlation may not be the cause of this relationship.

10)

a)

b)

11)

a)

b)