$\qquad$ Period: $\qquad$ Date: $\qquad$

## Assignment 4.6 Stats: Scatter plot

1. Which graph below shows the best model for the data and will create the best prediction? Explain specifically why your choice is the best model for the data.

2. Which graph below shows the best model for the data and will create the best prediction? Explain specifically why your choice is the best model for the data.

3. Which graph below shows the best model for the data and will create the best prediction? Explain specifically why your choice is the best model for the data.

4. Create a scatter plot for the data in the table.

| English Score | History Score |
| :---: | :---: |
| 60 | 65 |
| 53 | 59 |
| 44 | 57 |
| 61 | 61 |
| 70 | 67 |

a. Draw a line of best fit.
b. Find the equation of the line of best fit.

c. Do the English and history scores have a positive or negative correlation?
d. Do the English and history scores have a strong, moderate, or weak correlation?
e. Using the equation for the line of best fit, given an English score is 6, what would you predict the history score will be?

## Refresh your memory

5. Consider the frequency chart to the right.

Write a conditional statement from the data.

| data. | Passed Test | Failed Test | Totals |
| :---: | :---: | :---: | :---: |
| Completed Review <br> Sheet | $\frac{50}{51}=0.98$ | $\frac{1}{51}=0.02$ | $\frac{51}{51}=1.00$ |
| Did not complete <br> review sheet | $\frac{5}{15}=0.33$ | $\frac{10}{15}=0.67$ | $\frac{15}{15}=1.00$ |
| Totals | $\frac{55}{66}=0.83$ | $\frac{11}{66}=0.17$ | $\frac{66}{66}=1.00$ |

