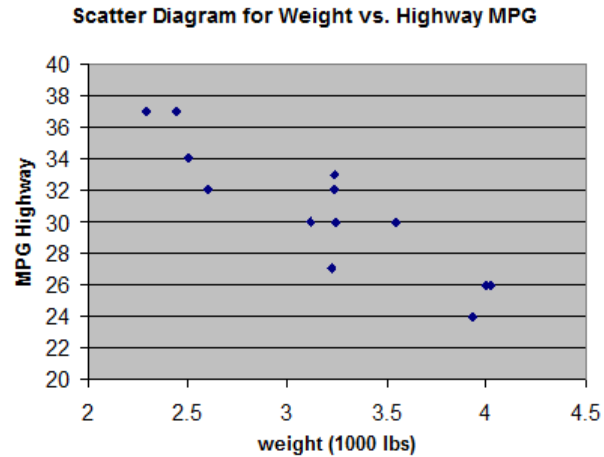


5-7 Scatter Plots and Trend Lines



1. Draw a line of best fit. Be sure that there are as many points above the line as below. Your line should go with the flow of the data.
2. Does your selected scatter plot have positive or negative correlation?

Circle one: Positive Correlation Negative Correlation

3. Choose two points **ON** your trend line. They are (,) and (,).

4. Find the slope of the line of best fit using your two points in #3 and the formula $\frac{y_2 - y_1}{x_2 - x_1}$. You may use decimals on this worksheet.

slope =

5. Does your slope seem correct based on your correlation from #2?

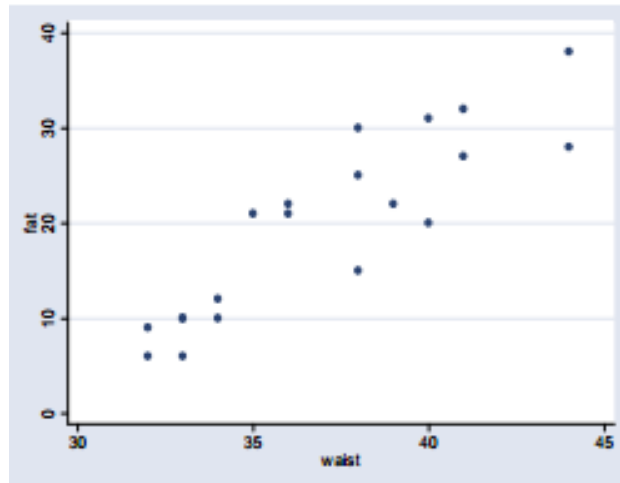
Circle one: Yes No

6. Using your slope from #4 and the formula $y - y_1 = m(x - x_1)$, write the equation of your trend line in slope-intercept form $y = mx + b$.

$y =$

7. Use your equation in #6 to make a prediction that there is **NO** data for in your graph. Be sure to explain, in detail, what you found and why you think the trend exists.

Waist Size in Inches vs. Percent Body Fat



1. Draw a line of best fit. Be sure that there are as many points above the line as below. Your line should go with the flow of the data.

2. Does your selected scatter plot have positive or negative correlation?

Circle one: Positive Correlation Negative Correlation

3. Choose two points **ON** your trend line. They are (,) and (,).

4. Find the slope of the line of best fit using your two points in #3 and the formula $\frac{y_2 - y_1}{x_2 - x_1}$. You may use decimals on this worksheet.

slope =

5. Does your slope seem correct based on your correlation from #2?

Circle one: Yes No

6. Using your slope from #4 and the formula $y - y_1 = m(x - x_1)$, write the equation of your trend line in slope-intercept form $y = mx + b$.

$y =$

7. Use your equation in #6 to make a prediction that there is **NO** data for in your graph. Be sure to explain, in detail, what you found and why you think the trend exists.