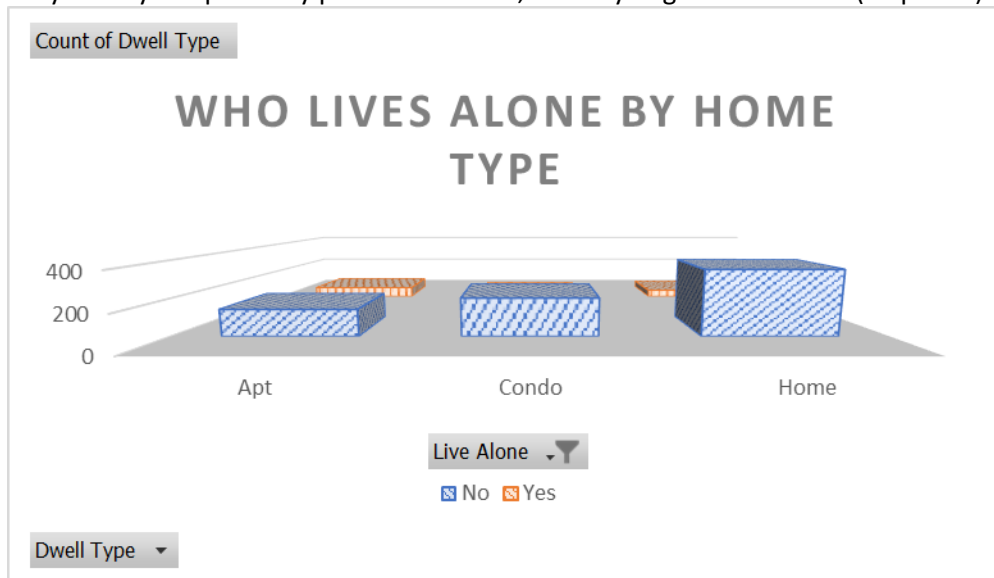


4. On Sheet 4, create a summary table of the data on Neighborhoods (you can do this manually or use a pivot table), and then create a pie graph of the data. Be sure that the percents are displayed on the graph and it has an appropriate title. Which neighborhood appears to have the most residents? What percent of the data is in this neighborhood? (15 points)

5. The 70th percentile of heights of women in the United States is approximately 65.6" or 5'5.6". What does this statement mean in plain English? (5 points)

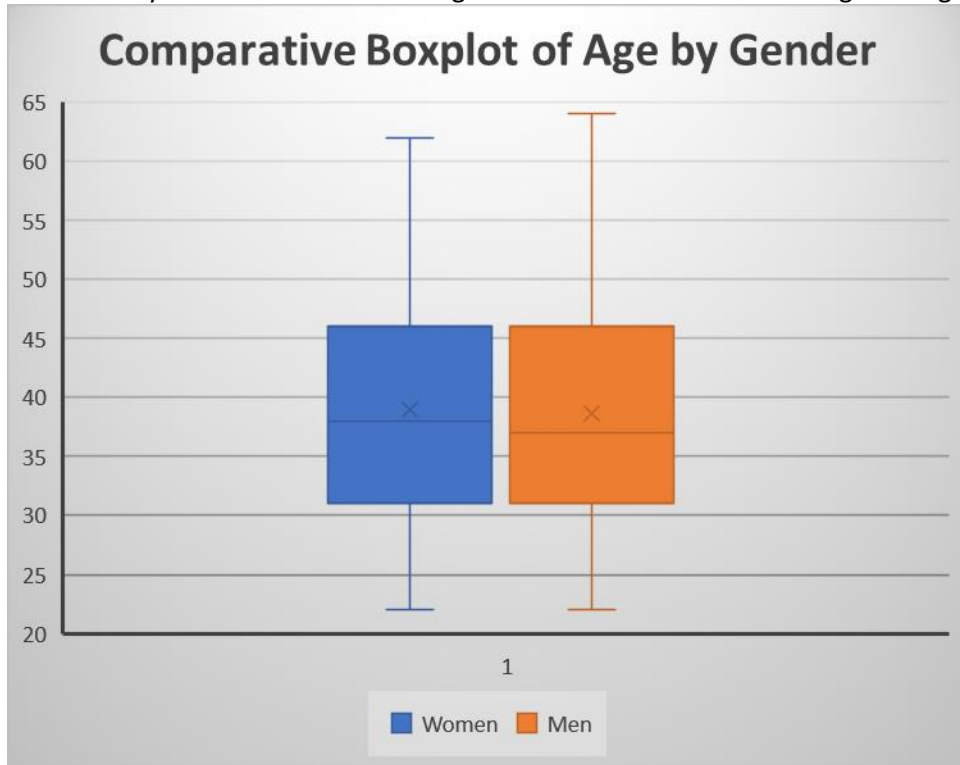
6. Below is a bar graph of who lives alone by type of home they dwell in. Is this a good graph? Why or why? Explain any positive features, and any negative features. (10 points)



7. On Sheet 6, does the data provided represent a probability distribution? Explain your reasoning. (5 points)

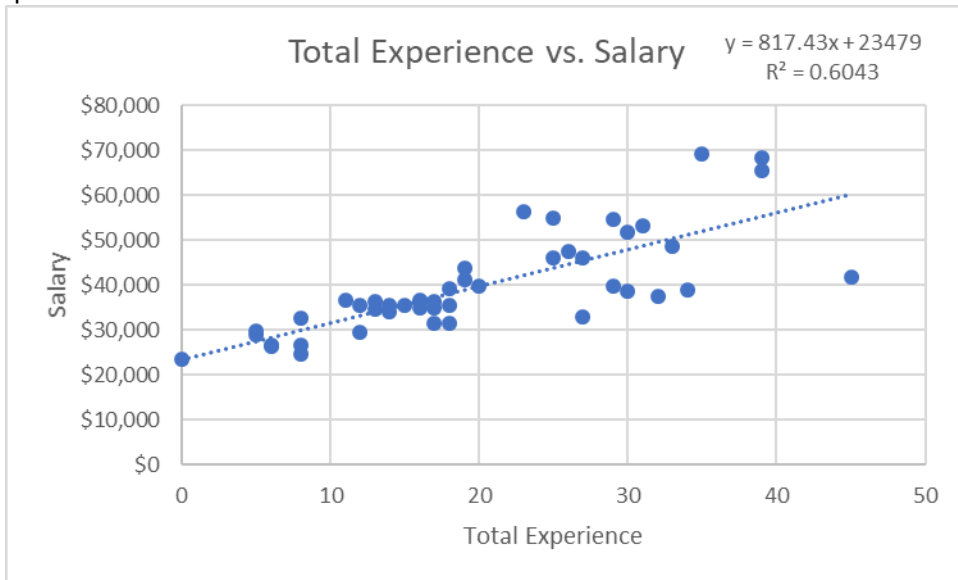
8. What does it indicate for the skewness of a histogram if the mean is lower than the median? (5 points)

9. A boxplot comparing the ages of men and women in a sample is shown. Describe any differences you notice between the ages of men and women according to the graph. (5 points)



10. Three coins are flipped and the outcome of each flip is recorded as either H or T. What are all the possible outcomes of the three flips? (10 points)

11. Employees are surveyed and a scatterplot of the relationship between total experience (work experience plus education) is plotted against salary. A linear regression line is found, and the equation and coefficient of determination is on the graph. Use this graph to answer the questions that follow.



- State the slope of the regression line and interpret it in the context of the problem. (5 points)
- State the y-intercept and interpret it in the context of the problem. (5 points)
- What is the meaning of the coefficient of determination, in context? (5 points)

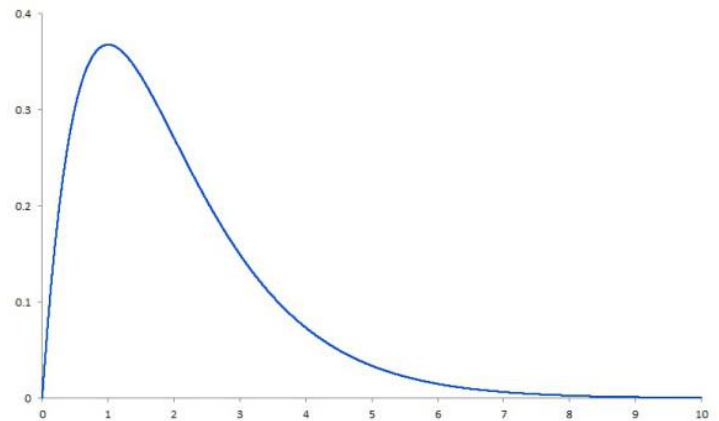
12. Under what circumstances is it better to use a median as a measure of central tendency than the mean? (5 points)

13. Describe a serious problem with the graph below. (5 points)



14. A distribution curve is shown to the right. Use it to answer the questions that follow.

a. What is the shape of the distribution? (2 points)



b. On the graph, label the approximate (relative) positions of the mean, median and mode. (3 points)