MTH 245, Quiz #3, Spring 2023   Name _____Key_____
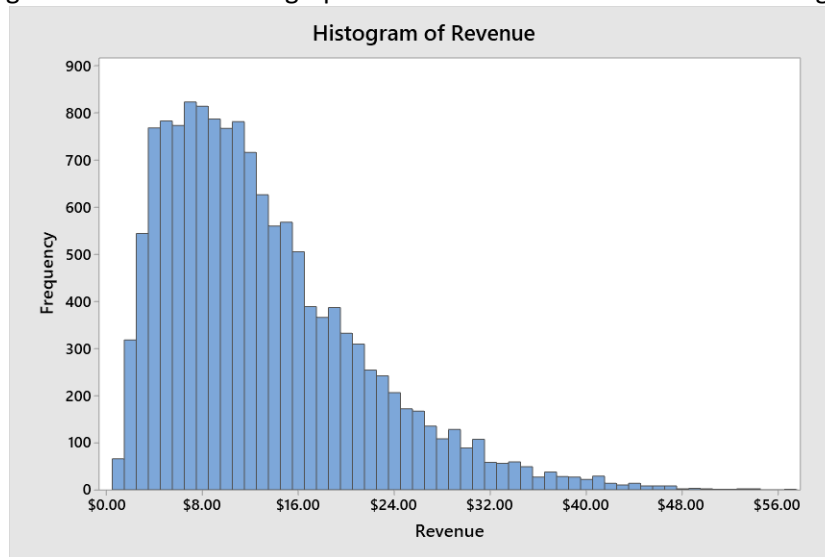
Instructions: Show all work. Answers without work can only be graded all or nothing. Partial credit is available only when work is shown. Answer all parts of each problem. Provide explanations as indicated. You may use Excel to complete any required statistical calculations or graphs. Submit any Excel work with assignment. Do not say "see Excel" for answers, but write or paste them into this document. Exact answers are preferred unless specifically asked to round.

1. The histogram shown below is a graph of Revenue from individual sales for a given year.

a. Which of the following statements are true? (only one is true; since this is a histogram, consider the mode to be the modal class)
    i. $mean \approx median \approx mode$
    ii. $mean \approx median$, but there is no mode
    iii. $mean < median < mode$
    iv.   mean > median > mode

b. Estimate the range from the graph

Approximately $56

c. Each class has the width of approximately $1. What is the approximate value of the modal class?

Approximately $7-7.99

2. Calculate a complete set of descriptive statistics for the data below. Include at least: the mean, median, standard deviation, maximum, minimum and IQR.

Male Salary	81600	76300	60900	60200	59000	68600	51900	67600	78900

Mean	**$ 67,222.22**
Standard Deviation	**$ 10,119.26**
Min	**$ 51,900**

1st Quartile	**$ 60,200**
Median	**$ 67,600**
3rd Quartile	**$ 76,300**
Max	**$ 81,600**
IQR	**$ 16,100**
Mode	**#N/A**
Range	**$ 29,700**