

Instructions: You must show all work to receive full credit for the problems below. You may use Excel where appropriate. Any datasets needed will be posted on Canvas with the quiz file, and you should submit such work along with your quiz. Round answers to two decimal places unless other instructions are given in the problem. Do not say “see Excel”. Paste your answers into the quiz.

1. Use an amortization schedule or one of Excel’s built-in financial formulas to determine the amount of money that would need to be paid monthly on a \$100,000 loan, with 5% interest compounded monthly so that the loan is paid back in 3 years.

\$2997.10 or \$2997.09

2. Determine if the sequence of values 10, 15, 22.5, 33.75, 50.625, ... is exponential or not. If it is, determine the common ratio. If it is not, explain why there is no common ratio.

It is exponential. The common ratio is 1.5

3. Determine if the sequence of values 6.4, 8.2, 10, 11.8, 13.6, 15.4, 17.2, ... is exponential or not. If it is, determine the common ratio. If it is not, explain why there is no common ratio.

This is not exponential. There is no common ratio.

4. Use the data in **154quiz5data.xlsx** Sheet 1 to create a complete set of descriptive statistics including the mean, median, mode, standard deviation, five-number summary, etc. Report the values here.

mean \$ 153.82

standard deviation \$ 97.37

min \$ 6.82

1st quartile \$ 83.32

median \$ 126.72

3rd quartile \$ 205.25

max \$ 485.01

IQR **\$ 121.92**
range **\$ 478.19**

mode **\$ 113.95**
 \$ 54.08

5. Use the data in the table to find the weighted average.

Values	52	66	99	60	89	97
Weight	11	16	5	33	8	27

74.34