MTH 154, Quiz #14, Spring 2019 Name KEY

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 Blackboard 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.

1. Use the sequence of values $6.5, 7.8, 9.1, 10.4, 11.7, 13, 14.3, \ldots$ to determine if the sequence is a linear relationship or another kind. If linear, what is the slope (common difference)?

Yes, it is linear

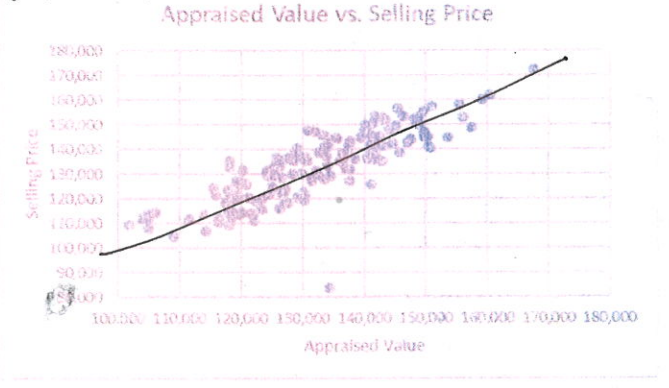
The common difference is 1.3

2. The linear equation $y = 0.017x - 0.0848$ models the relationship between the price of gold x and the price of silver y. Interpret the slope in the context of the problem. The intercept cannot be interpreted. Explain why not.

For each \$1 increase in the price of gold, the price of silver goes up by \$0.017 or 1.7¢.

The intercept cannot be interpretted because when the price of gold is zero, the equation predicts the price of silver is negative, which is impossible.

3. A scatterplot is shown. Does there appear to be a strong relationship between the variables? If so, is the relationship linear or nonlinear?



Yes.
linear