

**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.

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

*Slope or common difference is 1.3*

*it is linear*

- 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 every increase of \$1.00 in the price of gold,*

*Silver prices increase by an average of \$0.017*

*the intercept is negative and prices can't be negative*

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

*Yes, the relationship is pretty strong w/ one outlier*

*the relationship is linear*

