1. The residual sum of squares, as defined in "Lesson: Sums of squares and estimating the error variance" is a measure of the amount of unexplained variability in the data.

   True

   False

   3 / 3 points

2. The explained sum of squares, as defined in "Lesson: Sums of squares and estimating the error variance" is a measure of the overall variability in the data.

   True

   False

   3 / 3 points

3. The total sum of squares, as defined in "Lesson: Sums of squares and estimating the error variance" is a measure of variability that is independent of any predictor values.

   True

   False

   3 / 3 points

4. The explained sum of squares, as defined in "Lesson: Sums of squares and estimating the error variance" is a measure of variability that is independent of any linear regression parameter values.

   True

   False

   3 / 3 poi

5. If our linear regression assumptions are met, then we can estimate the error variance using $\frac{TSS}{n-(p+1)}$

   True

   False

   3 / 3 points

6. The higher the coefficient of determination, the stronger the causal relationship is between the response and predictors.

   True

   False

   3 / 3 points

7. A fitted model with a high coefficient of determination is a well-fitting model.

   True

   False

   3 / 3 points

8. Which of the following imply that a linear regression model will be non-identifiable?

   The response is a constant multiple of a predictor.

   One predictor variable is a constant multiple of another.

   There are fewer predictor variables than units in the dataset.

   One predictor value is a linear combination of several other predictor variables.

   One predictor variable is highly correlated with another.

   4 / 4 points