

## Quiz 1

Name: \_\_\_\_\_

1. Household Budget surveys are an example of:

- ☐ panel data
- ☐ experimental data
- ☐ time series data
- ☐ cross-sectional data

2. A dependent variable is also known as a(n) \_\_\_\_\_.

- ☐ explanatory variable
- ☐ control variable
- ☐ predictor variable
- ☐ response variable

3. The Zero conditional mean assumption means

- ☐  $E(u | x) = 0$
- ☐  $E(\hat{u} | x) = 0$
- ☐  $E(u^2 | x) = 0$
- ☐  $E(\hat{u}^2 | x) = 0$

4. The explained sum of squares (SSE) for the regression function,  $y = \beta_0 + \beta_1 x + u$ , is defined as \_\_\_\_\_.

- ☐  $\sum (\hat{y}_i - \bar{y})^2$
- ☐  $\sum (y_i - \hat{y}_i)^2$
- ☐  $\sum \hat{u}$
- ☐  $\sum \hat{u}^2$

5. The error term in a regression equation is said to exhibit homoskedasticity if \_\_\_\_\_.

- ☐ it has zero conditional mean
- ☐ it has the same variance for all values of the explanatory variable
- ☐ it has the same value for all values of the explanatory variable
- ☐ if the error term has a value of one given any value of the explanatory variable

6. Bonus: Why do we care about the Zero Conditional mean assumption?