# Response to Multiple Choice Question

## Question: The coefficient of determination for 16 is strong. (A) TRUE (B) FALSE

As a graduate statistics student, I need to carefully examine this question. The statement as phrased is problematic because the coefficient of determination (R²) is a statistical measure that ranges from 0 to 1 (or 0% to 100%) and represents the proportion of variance in a dependent variable that is explained by independent variable(s) in a regression model.

The value "16" cannot be a valid coefficient of determination because:

1. R² must be between 0 and 1 inclusive

2. "16" exceeds this range and therefore cannot represent a valid R² value

If the question intended to ask whether an R² value of 0.16 is strong, then I would still select (B) FALSE, as an R² of 0.16 indicates that only 16% of the variation in the dependent variable is explained by the model, which is generally considered a weak explanatory power in most fields.

The answer is (B) FALSE.