**More misinterpretations A Sociology student investigated the association between a country’s Literacy Rate and Life Expectancy, and then drew the conclusions listed below. Explain why each statement is incorrect. (Assume that all the calculations were done properly.)**

**a) The R2 of 64% means that the Literacy Rate determines 64% of the Life Expectancy for a country.**

**b) The slope of the line shows that an increase of 5% in Literacy Rate will produce a 2-year improvement in Life Expectancy.**

(a) When R2 is used to calculate the amount of variance in a dependent variable that is explained by an independent variable rather than the degree of correlation between two variables in statistics. It is additionally referred to as the coefficient of determination.

When the Pearson's correlation coefficient (r), which is the number obtained, will better explain a direct relationship between a nation's literacy rate and life expectancy.

The percentage of the dependent variable's variance that is predicted from the independent variable is known as the coefficient of determination or R squared method. It shows how much variety there is in the given data collection. The range of the coefficient of determination, which is the square of the correlation(r), is 0 to 1.

(b) Subsequently Although it cannot ensure an increase in life expectancy, the slope of the line can forecast one.

Additionally, the term "will" is used in a way that implies a guarantee, which is incorrect when reading slopes.