

Answer on Question #85313 – Math – Statistics and Probability

Question

Explain the assumptions of the linear regression model

Solution

1. Linear regression needs the relationship between the independent and dependent variables to be linear.
2. The linear regression analysis requires all variables to be multivariate normal.
3. Linear regression assumes that there is little or no multicollinearity in the data. Multicollinearity occurs when the independent variables are too highly correlated with each other.
4. Linear regression analysis requires that there is little or no autocorrelation in the data. Autocorrelation occurs when the residuals are not independent from each other.
5. Homoscedasticity. It means that the residuals are equal across the regression line.