Using the diagnostic plots to check the assumptions of the linear regression

Assumption	Linearity	Normality	Constant variance
Diagnostic	Scatterplot	Normal Q-Q plot	Residual plot
plot What to check	The scatterplot should demonstrate a linear relationship between <i>x</i> and <i>y</i> .	The residuals should be approximately normally distributed, thus forming a straight diagonal line on the normal Q-Q plot.	The variation of the residuals should be approximately equal for all values of <i>x</i> (or <i>y</i> .)
Good example		Normal Q-Q  Senting to the policy of the pol	Residuals vs Fitted  Septiment of the control of th
Bad examples	>	Normal Q-Q  Normal Q-Q  Significant participations of the properties of the properti	Residuals vs Fitted  1.5 2.0 2.5 3.0 3.5 4.0  Fitted values Im(Y ~ X)  Residuals vs Fitted