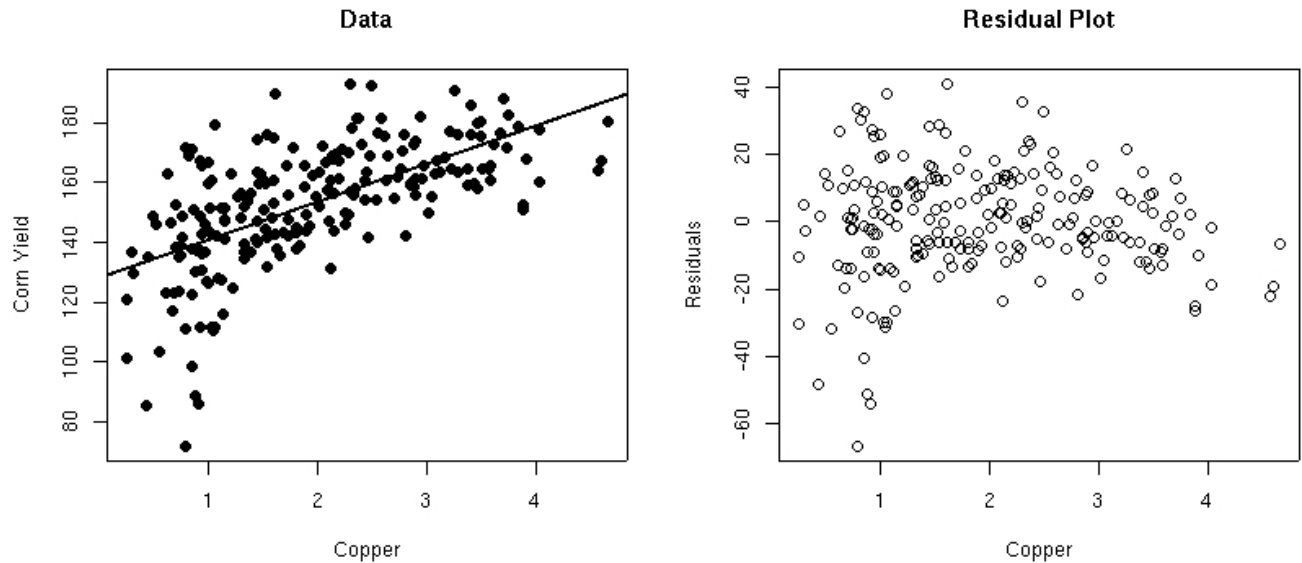**Question:** How is corn yield related to copper concentration in the soil?

Data Collection: Measurements were taken on a local experimental field near Ames, in 1997.

Data: Corn Yield (bushells) and Copper (parts per million)

	Mean	Std Dev
Copper (X)	1.93	1.02
Yield (Y)	152.7	20.8

Correlation=0.62

The regression line is $\hat{Y} = 128.3 + 12.6X$, and $R^2 = 0.38$.

1. Describe the association between Corn Yield and Copper (based on the plot of the data and the correlation).

2. Describe the fitted model, by filling in the blank. For every increase of 1 part per million in copper in the soil corn yield increases by _____.

3. How much variation in corn yield does copper explain?

4. Diagnose the fit using the residual plot. What are the problems with the fit?

5. Do you have any ideas for how to get a better fitting model?