

For a company that markets and repairs small computers, we would like to study the relationship between :

- Length of the service call in minutes (M)
- Number of electronic components in the computer that must be replaced (C)

A sample of 5 calls was obtained:

M	C
23	1
87	5
109	7
119	8
145	9

- (1) Draw a scatterplot. Does there appear to be a relationship between the two variables?
- (2) Find r (the correlation coefficient of the sample)
- (3) What is the predictor variable and what is the response variable?
- (4) For the Least Squares Regression line will β_1 be positive, negative, or zero?
- (5) Find the Least Squares Regression line.
- (6) Approximate $\mu_{M|C=6}$
- (7) Approximate $\mu_{M|C=10}$
- (8) Approximate $\mu_{M|C=2,000,000}$
- (9) Approximate the mean increase in call length (M) for each extra part that needs to be repaired.
- (10) Approximate the mean increase in call length (M) for each extra 3 parts that needs to be repaired.

