

1. Track and Field Day!

The table below shows data for 13 students in a statistics class. Each member of the class ran a 40-yard sprint and then did a long jump (with a running start).

Sprint Time (s)	5.41	5.05	9.49	8.09	7.01	7.17	6.83	6.73	8.01	5.68	5.78	6.31	6.04
Long Jump Distance (in)	171	184	48	151	90	65	94	78	71	130	173	143	141

- Which variable is the explanatory variable? Which variable is the response variable?
- Make a scatterplot of the relationship between sprint time (in seconds) and long jump distance (in inches). Describe the relationship between sprint time and long jump distance.
- The correlation coefficient is $r = -0.75$. What does this value mean in terms of the relationship (association) between the sprint times and the long jump distances?
- What effect would removing the student at (8.09, 151) have on the correlation?
- What effect would removing the student at (9.49, 48) have on the correlation?