

Project 7: Hypothesis Tests for the Correlation Coefficient r

Investigation 1

List the make/model, the City MPG, and the Highway MPG for each of the 10 cars.

Car	City MPG	Highway MPG
1:		
2:		
3:		
4:		
5:		
6:		
7:		
8:		
9:		
10:		

Use the 0.05 level of significance to test whether there is a linear relation between “City MPG” and “Highway MPG”.

If there is a relation, is it positive or negative? How can you tell?

Investigation 2

List the Overall Quality and Level of Difficulty ratings from ratemyprofessors.com for the instructors you have had at COS. (If you have too much data to fit, add additional rows.)

Overall	
Difficulty	

Use the 0.05 level of significance to test whether there is a linear relation between “Overall Quality” and “Level of Difficulty”.

If there is a relation, is it positive or negative? How can you tell?