Name: _____
Math 370 – Mathematical Modeling – Dr. Lee – Fall 2020

In-Class Assignment

The table below displays the temperatures in Fahrenheit and the corresponding number of times a cricket chirps.

X	46	49	51	52	54	56	57	58	59	60
Y	40	50	55	63	72	70	77	73	90	93
X	61	62	63	64	66	67	68	71	72	
Y	96	88	99	110	113	120	127	137	132	

1. Use the MATLAB command "polyfit" and fit the data with several **low-order** polynomials.
2. Plot the data set and the polynomials (with increments of 1 in x) on the same graph.
3. Compute and plot the R-square value as a function of polynomial degree.
4. Down-select your polynomials to one and discuss why you choose it.