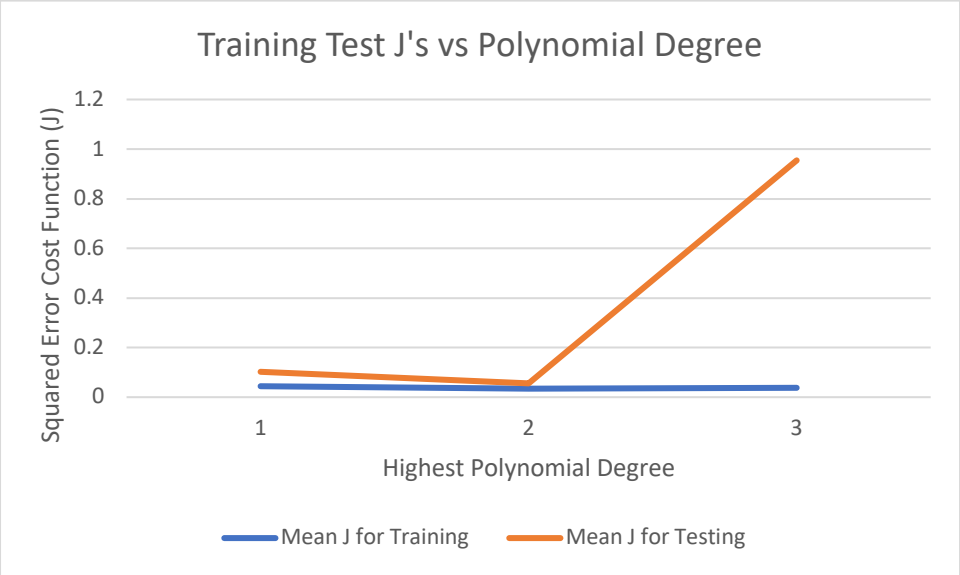
Project 2: Analyzing Women's Olympic 100-Meter Race times using Polynomial Regression
By: Lake Summers

	Linear	Quadratic	Cubic
1,2,3,4	0.03836388	0.03547085	0.03493587
5	0.17617588	0.0677583	0.03510245
1,2,3,5	0.04601539	0.03278981	0.03269359
4	0.06439725	0.0516594	0.05729374
1,2,4,5	0.05363736	0.04265187	0.04109596
3	0.03145726	0.0073972	0.00945486
1,3,4,5	0.04994162	0.03514046	0.0344135
2	0.04240102	0.03622194	0.03410313
2,3,4,5	0.03283572	0.02553375	0.04161484
1	0.19941898	0.11547845	4.63690816
Mean for Training	0.04415879	0.03431735	0.03695075
Mean for Testing	0.10277008	0.05570306	0.95457247



Beyond quadratic, the testing squared error cost function skyrockets therefore you should not use this to estimate. Between the quadratic function and linear function it seems as though the mean J for testing is much lower on the quadratic so this should be the model we use to calculate our weights from the full set of data