Name: Yolanda (Tzu Yu) Chen

Github: codery12321

Purdue Username: chen3633

Instructor: Ghasemi

## Problem 1 Write Up

## **Estimated Functions:**

$$\widehat{y_1}(x) = 29.059x + 92.768$$

$$\widehat{y}_2(x) = -2.111x^2 + 28.507x + 112.315$$

$$\widehat{y_3}(x) = 1.757x^3 + -1.432x^2 + -0.331x + 101.866$$

$$\hat{y}_{a}(x) = -0.015x^{4} + 1.754x^{3} + -1.082x^{2} + -0.256x + 100.915$$

$$\widehat{y_3}(x) = 2.111x + 20.507x + 112.515$$

$$\widehat{y_3}(x) = 1.757x^3 + -1.432x^2 + -0.331x + 101.866$$

$$\widehat{y_4}(x) = -0.015x^4 + 1.754x^3 + -1.082x^2 + -0.256x + 100.915$$

$$\widehat{y_5}(x) = -0.0004x^5 + -0.015x^4 + 1.767x^3 + -1.074x^2 + -0.323x + 100.887$$

## **Data Visualization:**

## Problem 1 Data Visualization

