Rajeev Sahay *(Your Full Name)*
GitHub Username: rajeevsahay *(Your GitHub Username)*
Purdue Username: sahayr *(Your Purdue Username)*
problem1_writeup *(Assignment Name)*

Estimated Functions:

$\widehat{y_1}(x) = a_1 x + b$ *(write numerical values for a_i's and b's)*

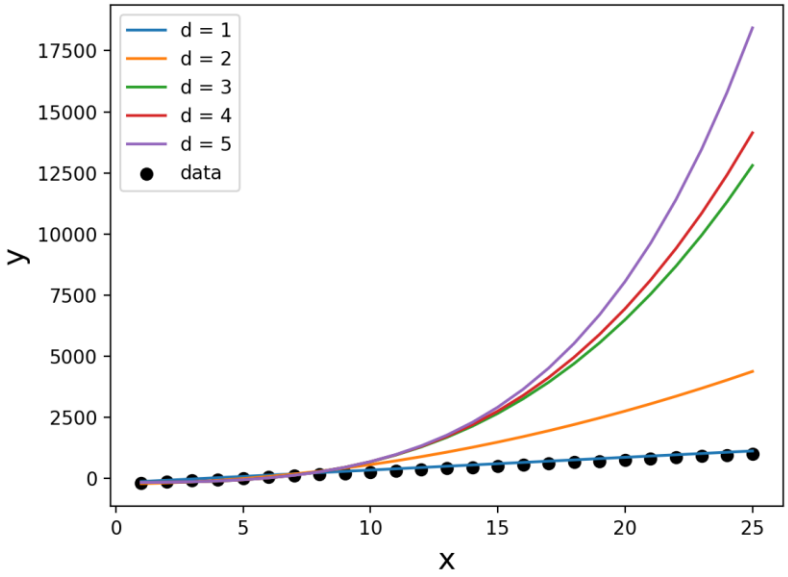
$\widehat{y_2}(x) = a_2 x^2 + a_1 x + b$

$\widehat{y_3}(x) = a_3 x^3 + a_2 x^2 + a_1 x + b$

$\widehat{y_4}(x) = a_4 x^4 + a_3 x^3 + a_2 x^2 + a_1 x + b$

$\widehat{y_5}(x) = a_5 x^5 + a_4 x^4 + a_3 x^3 + a_2 x^2 + a_1 x + b$

Data Visualization: *(insert plot obtained from data in poly.txt)*



(Discuss relationship of data)

The data seems to best follow a first order polynomial (i.e., a line) which can be seen from the low error between the estimated regression function, $\widehat{y_1}(x)$, and the data in the plot above.