1. We have a deterministic signal and an additive noise, as the formula below. Using the MVU estimator, estimate the signal, then print the estimated values and plot the estimated signal.

(HINT: A,B are the actual values,first use them to derive data from the noise-free signal then add white noise and carry out the estimation compare estimated values with the actual values)

1. The deterministic signal x is a polynomial depending on time that is aggregated with a Gaussian noise. Using the MVU estimator for linear model( use the x.mat file for data)

* Estimate the signal x
* Determine the estimated coefficient matrix
* Plot the noisy signal and estimated signal

1. Using the MVU estimator for Linear model, estimate the signal below and determine the coefficients.
2. Using the MVUE method and sampling time , derive data and identify the linear system.

* Take the noise as the input of the system, demonstrate the estimated coefficients.
* Using the *"step”* command of matlab software, compare the step response of the estimated system and the actual system.