

Problems for Tutorial-01: Basics of Scilab

1. Write a Scilab script to compute the following:

(a) $n_1 = \sqrt{(Ax - y)^T(Ax - y)}$

(b) $n_2 =$ Sum of elements of $(Ax - b)$ (Hint: Use sum command)

(c) $n_3 =$ Sum of square of the elements of $(Ax - b)$ (Hint: Use for loop)

where $A = \begin{bmatrix} a & a^2 & a^3 \\ b & b^2 & b^3 \\ c & c^2 & c^3 \end{bmatrix}$, $a = 1, b = 2, c = 3$, $x = \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix}$, $y = \begin{bmatrix} 4 \\ 12 \\ 36 \end{bmatrix}$.

2. Write a Scilab script to save the solution of Problem 1, i.e., $[n_1 \ n_2 \ n_3]$ as Problem2.csv file.