

Generate elements of a matrix  $A$   $n \times n$  by random drawing (function `rand()` should be deployed) of numbers belonging to the range  $-10, \dots, 10$ .

Thereafter:

Calculate matrix  $A^{-1}$  (inverse of matrix  $A$ ) and draw a vector  $B$   $\{n \times 1\}$  from random numbers within a range  $2, \dots, 4$ . Solve a system:

$$\{X\} = A^{-1} \times \{B\}$$

Separately solve:

$$A \times \{X\} = \{B\},$$

Using Gauss elimination method. Compare the results, calculate the difference between the results and prepare a graph ( $x_1, x_2, x_3, \dots$  vs errors).