Exercises 1 *List of implementations:*

1. *A library of operation of addition, scalar multiplication, dot product of vectors.*
2. *A library of operation of addition, multiplication, transposition of matrices.*
3. *A library of elementary column and row operations.*

(Any vector, and any matrix we can consider as an array and multidimensional array of numbers respectively.)

Exercises 2 1. *Explain Gaussian method of computing an inverse of a matrix.*

2. *Implement this method.*

Exercises 3 1. *Explain Gaussian method of computing the rank of a matrix.*

2. *Implement this method.*

Exercises 4 *Propose a method of calculation of a dimension of linear span $Span(A)$ of given finite set of vectors $A \subseteq \mathbb{R}^n$.*

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