

## Glossary

1. **Simplex Method**

The simplex method is an iterative procedure, solving a system of linear equations in each of its steps, and stopping when either the optimum is reached, or the solution proves infeasible.

2. **Degenerate**

It indicates to having declined, as in function or nature, from a former or original state: a degenerate form of an ancient folk art.

3. **Dimension**

In physics and mathematics, the dimension of a space or object is informally defined as the minimum number of coordinates needed to specify any point within it.

4. **N-dimensional space**

A vector space whose basis has  $n$  vectors.

5. **Iterative Method**

In computational mathematics, an iterative method is a mathematical procedure that generates a sequence of improving approximate solutions for a class of problems.

6. **Vertices**

In geometry, a vertex (plural vertices) is a special kind of point that describes the corners or intersections of geometric shapes.

7. **Unbound**

It means freed from bonds or restraints; not restrained or tied down by bonds.

8. **Linear**

It refers to arranged in or extending along a straight line.

9. **Matrix notation**

In mathematics, a matrix is a rectangular array of numbers, symbols, or expressions, arranged in rows and columns & thus mathematical expressions are represented in matrix notation.

10. **Objective Function**

The goal of the optimization process is to find the parameter values that result in a maximum or minimum of a function called the objective function.

11. **Vector**

In mathematics & physics, a quantity having direction as well as magnitude, especially as determining the position of one point in space relative to another.

12. **Amenable**

It means that easily influenced or controlled; capable of being treated in a particular way.

13. **Slack Variable**

In an optimization problem, a slack variable is a variable that is added to an inequality constraint to transform it to equality.

14. **Feasible**

Any work or activity is possible to do easily or conveniently; likely; probable.

15. **Optimization**

To make the best or most effective use of it; making best use of resources in order to increase the productivity.