#### **Table of Contents**

| OMETRY                                |   |  |
|---------------------------------------|---|--|
| ZERO DIMENSIONAL                      | 3 |  |
| FROM ZERO TO ONE                      | 3 |  |
| FROM ONE TO TWO DIMENSIONAL           | 3 |  |
| FROM TWO TO THREE DIMENSIONAL         | 4 |  |
| DEFINITE DIMENSIONS OF SPACE          | 4 |  |
| MEMORY                                | 5 |  |
| MATHEMATICAL OR FORMAL SPACES         | 5 |  |
| MUTUAL RELATIONS                      | 5 |  |
| GEOMETRICAL EQUATIONS AND EXPRESSIONS | 6 |  |

1/6

GEOMETRY

#### 2025/05/07 11:16

# GEOMETRY

- 2d spaces ,2D , The third, described by the draught of a line, or composed of infinite such lines  $\circ\,$  2D two dimensional space
  - Definite area / meter square meter square area
- 2d spatial frames
- 3d formal containers
- Definite volume / meter cube meter cube volume

Dimensions are of a four-fold difference.

- The least of Magnitudes, so styled by those who write de Indivisibilibus, as being in their account infinitely little.
  - 1. POINT, Prick, Tittle, Punctilio, Ace, lot, Whit.
- The second kind, described by the flux of a point, or composed of infi|nite such points, is styled.
  2. LINE, delineate, rule.
- The third, described by the draught of a line, or composed of infinite such lines.
  - 3. SUPERFICIES, Plain, Surface. To which may be annexed, that more particular notion of Superficies, called AREA, Plot; Bed, Page.
- The fourth, described by the lifting up a Superficies, or composed of infi|nite Superficies.
  - 4. SOLID, Body, Bulk.

By these may be express'd those Algebraical notions of Absolute, Line|ary, Quadratic, Cubic; and so, continuing this Table, Quadrato-Quadratic, Quadrato-Cubic, Cubo-Cubic, Quadrato-Cubo-Cubic, &c. as far as one pleases.

## ZERO DIMENSIONAL

### FROM ZERO TO ONE

- from 0d to 1d
  - $\circ\,$  from dot to lines or curves

### FROM ONE TO TWO DIMENSIONAL

- from 1d to 2d
  - 2d shape verse
  - $\circ\,$  From line to joints , axial patterns they follow , Homologous configurations , ( axis or lines ang )
    - linear joints
    - angle
  - from lines to planes
    - plane , from line ( parallel negative or positive x axis ) to 2d flatness
    - from linear joint elevations ( Positive y axis ) to 2d linear joint elevation
    - from linear joint depressions ( negative y axis ) to 2d linear joint depression

- from arcs to circle
- $\circ\,$  from 2d shapes to 2d organization
- from 2d shapes to 2d diagrams
- from 2d shapes to 2d flow charts

#### FROM TWO TO THREE DIMENSIONAL

- from 2d to 3d
  - 3d shape verse
  - from planes to planar joints
    - planar joints
  - $\circ\,$  from planes to cubes
    - from 2d elevations (Positive yz plane) to 3d elevations
    - from 2d depressions ( negative yz plane ) to 3d depressions
    - from 2d flatness ( parallel xy plane ) to 3d planar structures
  - from circle
  - from semi circle
  - from triangle
  - from square
  - $\circ\,$  from 3d shapes to 3d organization

#### **DEFINITE DIMENSIONS OF SPACE**

In geometry, a three-dimensional space (3D space, 3-space or, rarely, tri-dimensional space) is a mathematical space in which three values (coordinates) are required to determine the position of a point. Most commonly, it is the three-dimensional Euclidean space, that is, the Euclidean space of dimension three, which models physical space. More general three-dimensional spaces are called 3-manifolds. The term may also refer colloquially to a subset of space, a three-dimensional region (or 3D domain), a solid figure.

- 0D Zero dimensional space
  - ° zero
- 1D One dimensional space
  - Numerical length / meter , meter length
  - Number line , number line
- 2D two dimensional space
  - Numerical area / meter square meter square area
  - Numerical planes , 2d coordinate shape , computational graphical shape , 2d shape
    - 2D matter does not exist
    - 2D computational graphics
- 3D three dimensional space
  - numerical volume / meter cube meter cube volume
  - $\circ\,$  numerical solids , 3d coordinate shape , 3d shape
    - 3D computational models
    - 3D formal shapes
    - 3D matter measures
      - DEFINITE MASS

- Free space
  - $\,\circ\,$  Vaccum , void where no matter or substance exists

#### MEMORY

- bits
- nibble
- bytes
- kilobytes
- megabytes
- gigabytes
- terabytes
- petabytes
- exabytes
- zettabytes
- yottabytes

#### **MATHEMATICAL OR FORMAL SPACES**

- Mathematical spaces
  - Vector spaces
    - a vector space (also called a linear space) is a set whose elements, often called vectors, may be added together and multiplied (scaled) by numbers called scalars.
  - real coordinate space
    - In mathematics, the real coordinate space or real coordinate n-space, of dimension n
  - Euclidean space
  - Topological space

In mathematics, a space is a set (sometimes known as a universe) with a definition (structure) of relationships among the elements of the set. While modern mathematics uses many types of spaces, such as Euclidean spaces, linear spaces, topological spaces, Hilbert spaces, or probability spaces, it does not define the notion of space itself.

#### **MUTUAL RELATIONS**

- MUTUAL RELATIONS
  - Definite place / coordinates
    - equator
    - latitude
    - Iongitude
  - Definite center or origin
  - Mathematical definite language
    - numerical distance
    - Axis (x,y,z)

#### **GEOMETRICAL EQUATIONS AND EXPRESSIONS**

- Reference to dimensions , equations of dimensions
  - Algebraic equations in space
    - positional coordinates
      - equations of line
      - equations of circle
  - Geometrical Formulas in space
    - geometrical formulas of shapes
  - Trigonometry

From: https://mail.mantrakshar.co.in/ - Kshtrgyn

Permanent link: https://mail.mantrakshar.co.in/doku.php/en/geometry?rev=1721669445



Last update: 2024/07/22 17:30