

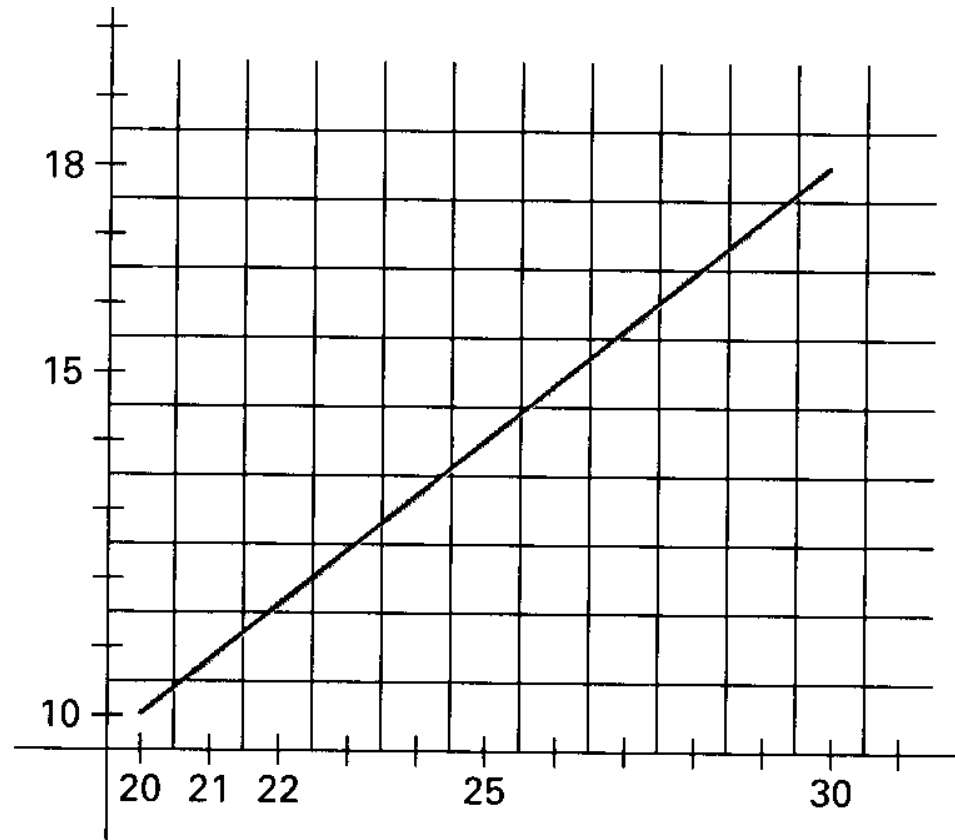
Introduction

An elementary graphics building block, such as a point, line or arc. In a solid modeling system, it is a cylinder, cube or sphere.

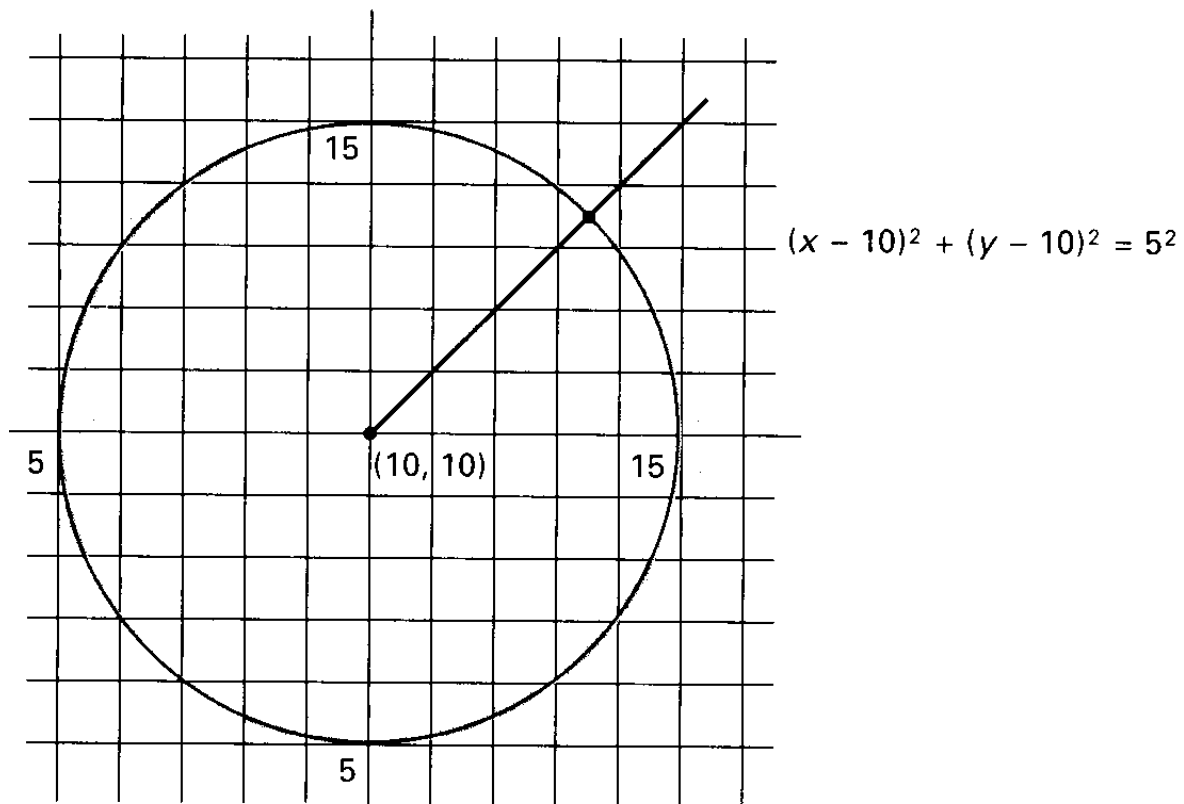
Output Primitives

- Characters,
- Geometric Entities.
- Lines,
- Filled Areas,
- Colours
- Polygons

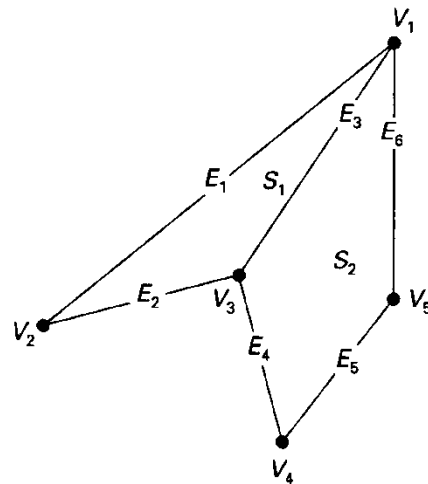
Output Primitives - Lines and Points



Output Primitives - Circles



Output Primitives - Polygon



VERTEX TABLE
$V_1: x_1, y_1, z_1$
$V_2: x_2, y_2, z_2$
$V_3: x_3, y_3, z_3$
$V_4: x_4, y_4, z_4$
$V_5: x_5, y_5, z_5$

EDGE TABLE
$E_1: V_1, V_2$
$E_2: V_2, V_3$
$E_3: V_3, V_1$
$E_4: V_3, V_4$
$E_5: V_4, V_5$
$E_6: V_5, V_1$

POLYGON-SURFACE TABLE
$S_1: E_1, E_2, E_3$
$S_2: E_3, E_4, E_5, E_6$

Application

The application of graphics primitives such as points, lines, curves, and shapes or polygon(s), are used in **Vector graphics**. which are all based on mathematical expressions, to represent images in computer graphics. "Vector", in this context, implies more than a straight line.

Vector graphics is based on images made up of vectors (also called paths, or strokes) which lead through locations called control points. Each of these points has a definite position on the x and y axes of the work plan. Each point, as well, is a variety of database, including the location of the point in the work space and the direction of the vector (which is what defines the direction of the track). Each track can be assigned a color, a shape, a thickness and also a fill. This does not affect the size of the files in a substantial way because all information resides in the structure; it describes how to draw the vector.

Assignment

Q. What do you mean by the term graphic primitives?