Reflection: -

- · A reflection is a transformation that produces a nurror image of an object.
- The mirror image for a two-dimensional reflection is generated relative to an axis of reflection by rotating the object 1800 about reflection axis.
- Reflection gives image based on position of aris of reflection. Transformation matrix for few positions are discussed here.

Reflection about x-axis

2 3 position 2 2 3 Reflected position

I his transformation keys a valles are same but flips y value of co-ordinate: positions.

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Reflection about y-aris.
Reflected original position
This transformation keeps y values same but flips a values of coordinate positions.
Reflection about origin.
and so asides when
origin al position
Reflected 2' sold of s
This transformation flips a dy both values of
co-ordinate positions.
[-1 0 0 7 0 0 -1 0] when the standard on bonn;
(915 (915) A (915)
(8,-16)
(00, -10)

Reflection about x=y line , ON OF THE PORT - 1 This transfermation intermange & & y value of eo-ordinate positions. Example: a. Find sue co-ordinate after reflection of sue traingle A(10,10) 13(15,15) ((20,00) about a-axis. $P' = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \end{bmatrix} \begin{bmatrix} 10 & 15 & 20 \\ 10 & 15 & 10 \\ 1 & 1 & 1 \end{bmatrix}$ = -10 -15 -10 Anothing show have final co-ordinate after reflection are A' (10, -10) c' (20, -10)