

ORTHOGRAPHIC PROJECTIONS

OF POINTS, LINES, PLANES, AND SOLIDS.

TO DRAW PROJECTIONS OF ANY OBJECT,
ONE MUST HAVE FOLLOWING INFORMATION

A) OBJECT

{ WITH IT'S DESCRIPTION, WELL DEFINED. }

B) OBSERVER

{ ALWAYS OBSERVING PERPENDICULAR TO RESP. REF. PLANE. }

C) LOCATION OF OBJECT,

{ MEANS IT'S POSITION WITH REFERENCE TO H.P. & V.P. }

TERMS 'ABOVE' & 'BELOW' WITH RESPECTIVE TO H.P.
AND TERMS 'INFRONT' & 'BEHIND' WITH RESPECTIVE TO V.P.
FORM 4 QUADRANTS.

OBJECTS CAN BE PLACED IN ANY ONE OF THESE 4 QUADRANTS.

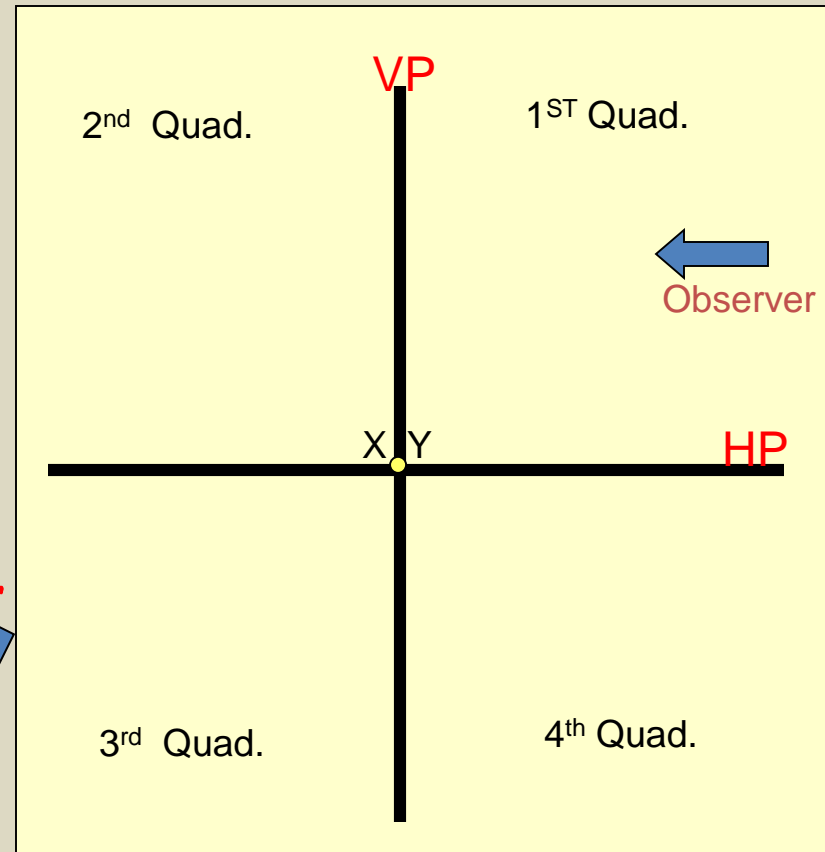
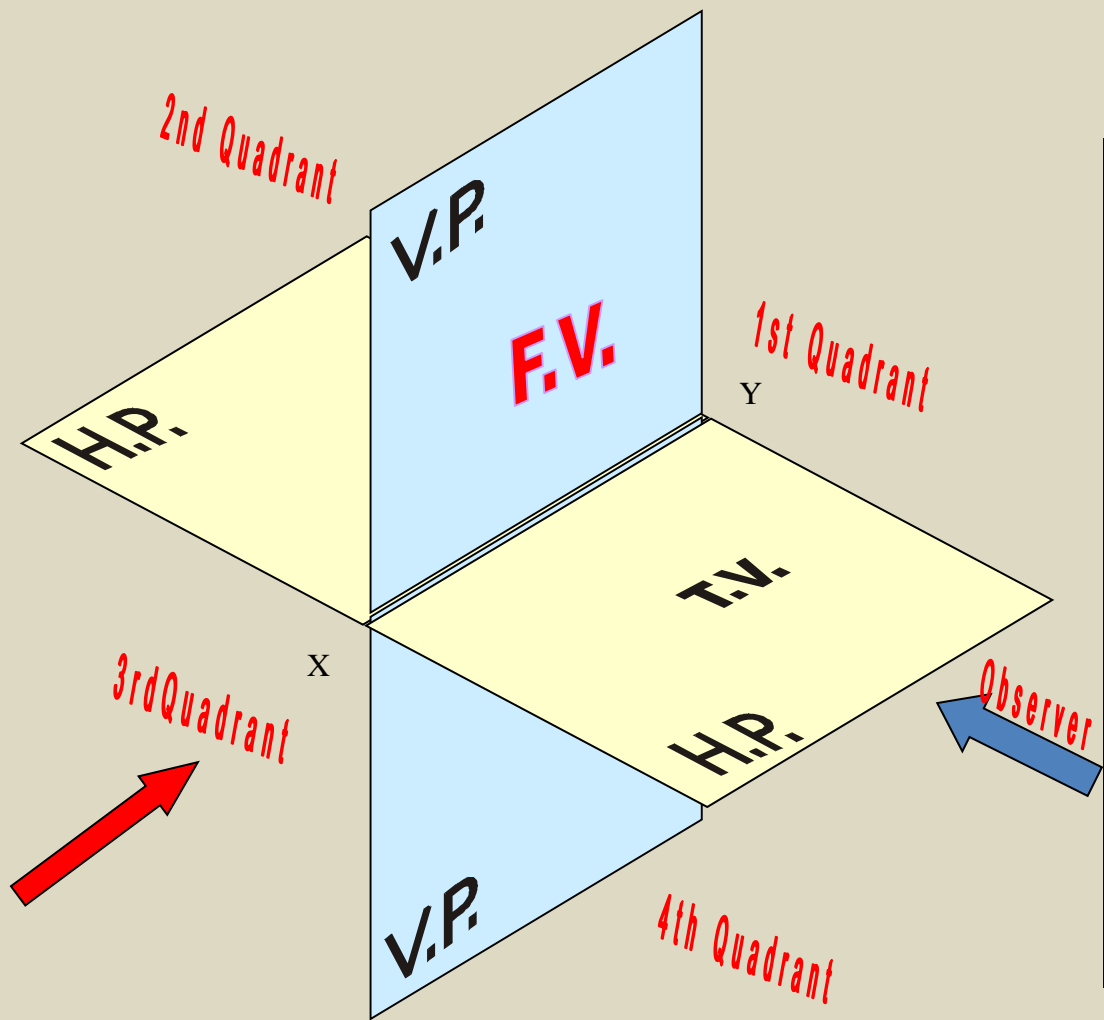
IT IS INTERESTING TO LEARN THE EFFECT ON THE POSITIONS OF VIEWS (FV, TV)
OF THE OBJECT WITH RESP. TO X-Y LINE, WHEN PLACED IN DIFFERENT QUADRANTS.

NOTATIONS

FOLLOWING NOTATIONS SHOULD BE FOLLOWED WHILE NAMEING DIFFERENT VIEWS IN ORTHOGRAPHIC PROJECTIONS.

OBJECT	POINT A	LINE AB
IT'S TOP VIEW	a	a b
IT'S FRONT VIEW	a'	a' b'
IT'S SIDE VIEW	a''	a'' b''

*SAME SYSTEM OF NOTATIONS SHOULD BE FOLLOWED
INCASE NUMBERS, LIKE 1, 2, 3 – ARE USED.*



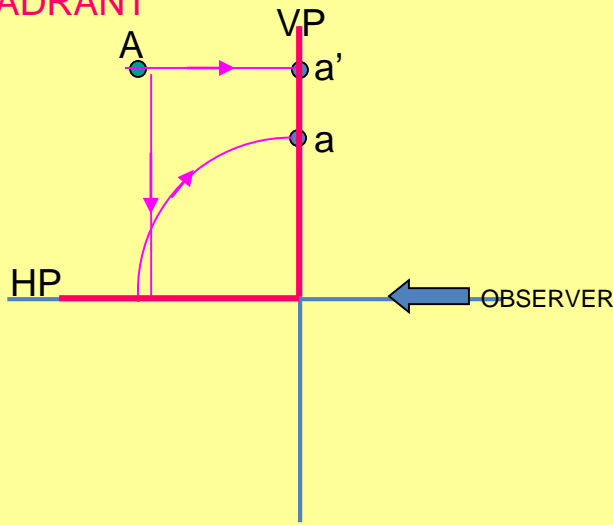
THIS QUADRANT PATTERN,
 IF OBSERVED ALONG X-Y LINE (IN RED ARROW DIRECTION)
 WILL EXACTLY APPEAR AS SHOWN ON RIGHT SIDE AND HENCE,
 IT IS FURTHER USED TO UNDERSTAND ILLUSTRATION PROPERLLY.

Point A is Placed In different quadrants and it's Fv & Tv are brought in same plane for Observer to see clearly.

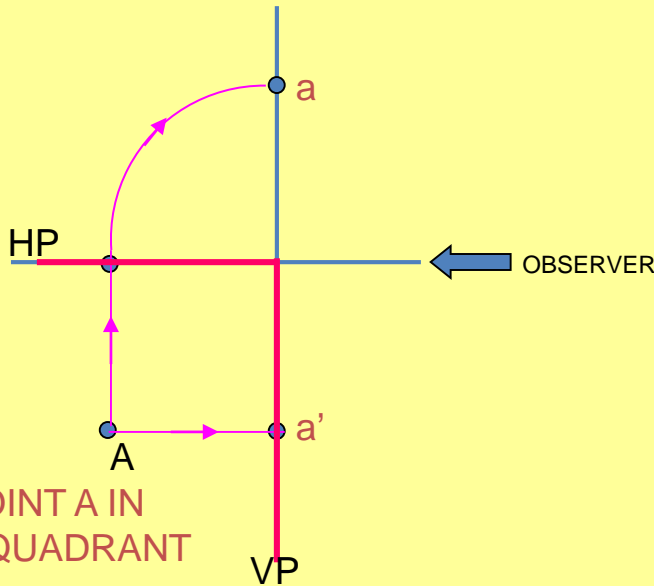
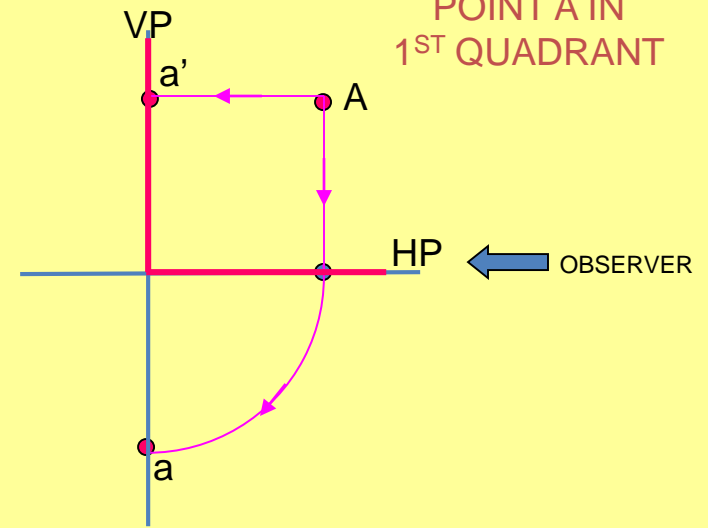
Fv is visible as it is a view on VP. But as Tv is a view on Hp, it is rotated downward 90° , In clockwise direction. The In front part of Hp comes below xy line and the part behind Vp comes above.

Observe and note the process.

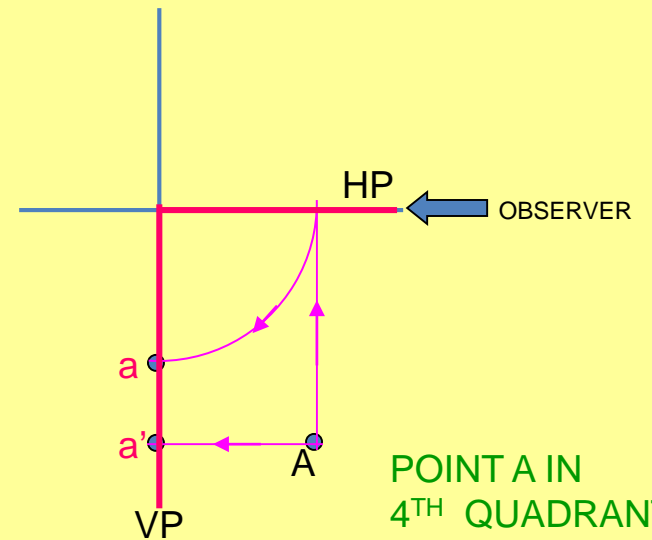
POINT A IN 2ND QUADRANT



POINT A IN 1ST QUADRANT



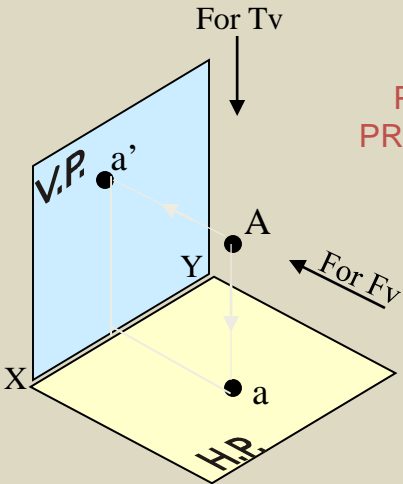
POINT A IN 3RD QUADRANT



POINT A IN 4TH QUADRANT

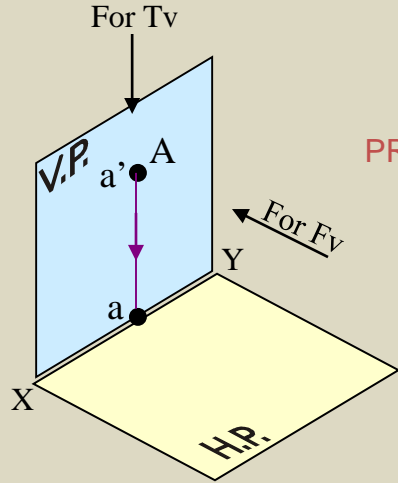
PROJECTIONS OF A POINT IN FIRST QUADRANT.

POINT A ABOVE HP & IN FRONT OF VP



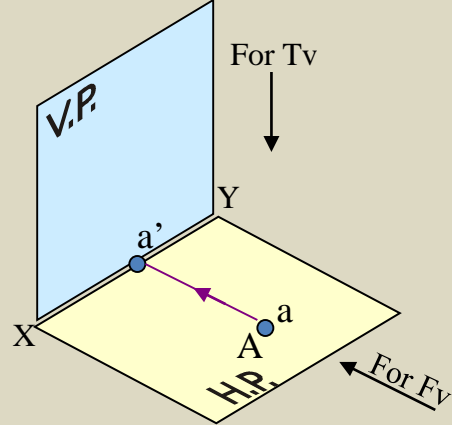
PICTORIAL PRESENTATION

POINT A ABOVE HP & IN VP



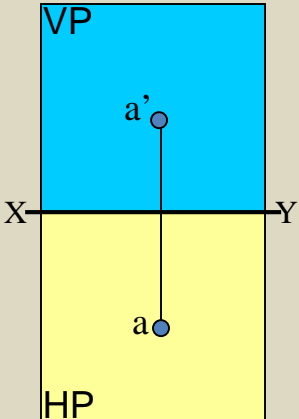
PICTORIAL PRESENTATION

POINT A IN HP & IN FRONT OF VP

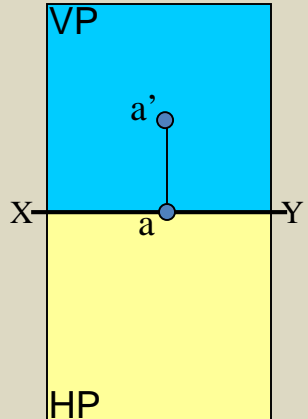


ORTHOGRAPHIC PRESENTATIONS OF ALL ABOVE CASES.

*Fv above xy,
Tv below xy.*



*Fv above xy,
Tv on xy.*



*Fv on xy,
Tv below xy.*

