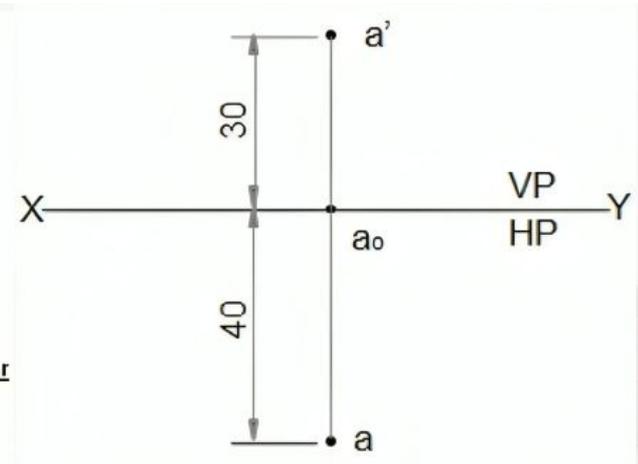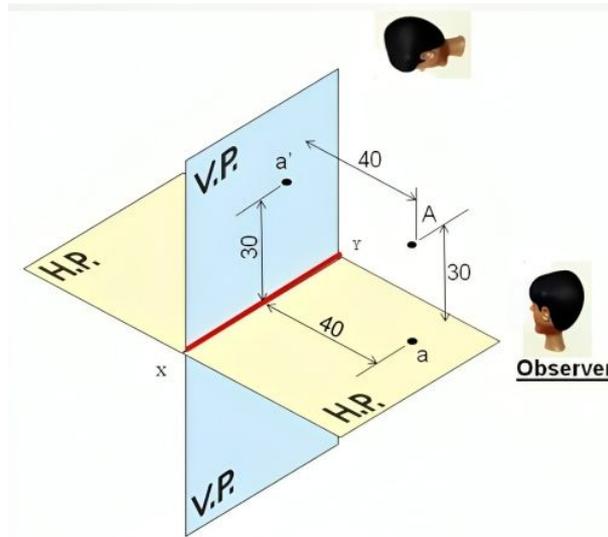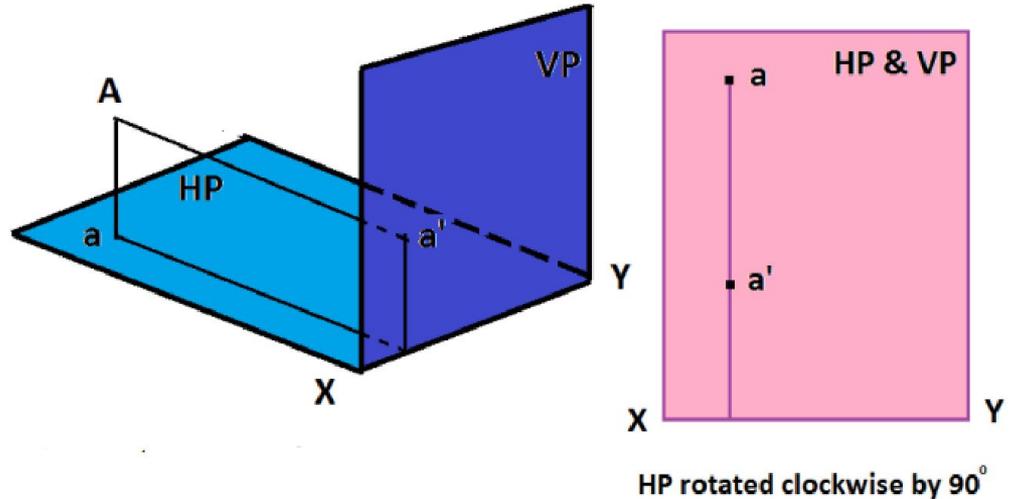# PROJECTION OF POINT

PRASANTH O P

FIRST QUADRANT

- Above HP in front of VP.
- PLAN (TV) – Below reference line.
- ELEVATION (FV) – Above reference line.
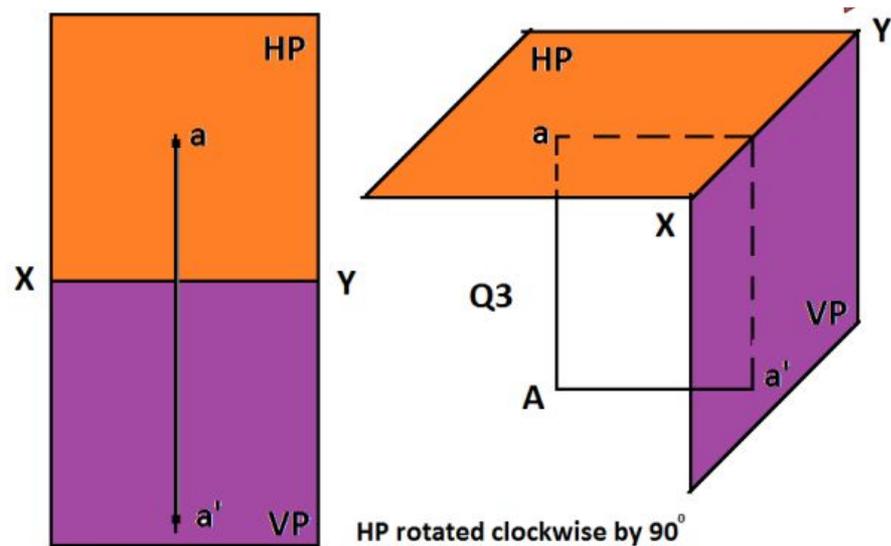
SECOND QUADRANT

- Above HP behind VP.

- PLAN (TV) – Above reference line.

- ELEVATION (FV) – Above reference line.
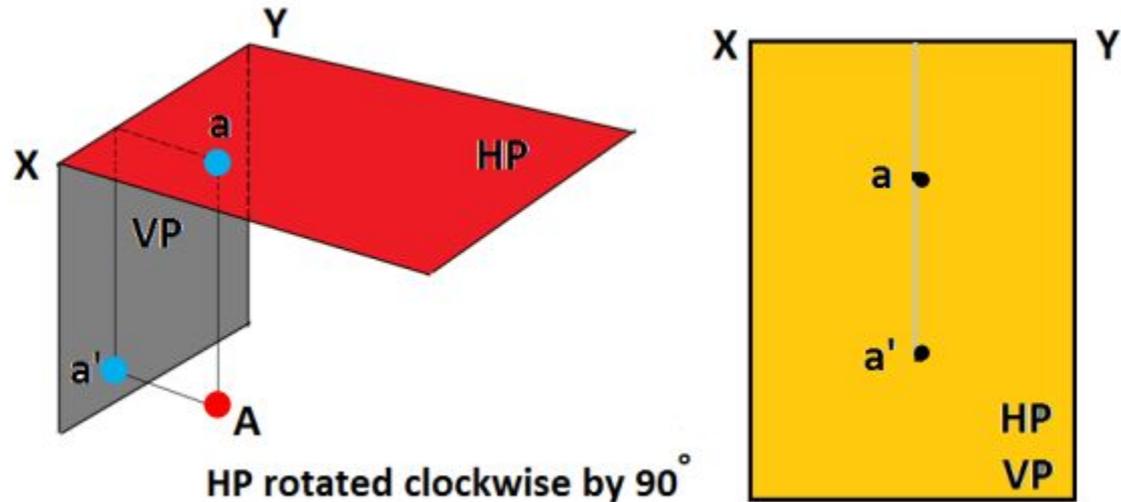

HP rotated clockwise by 90°

THIRD QUADRANT

- Below HP Behind VP.

- PLAN (TV) – Above reference line.

- ELEVATION (FV) – Below reference line.
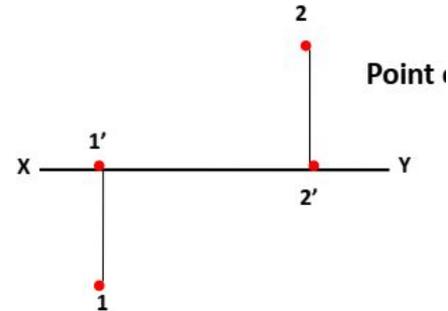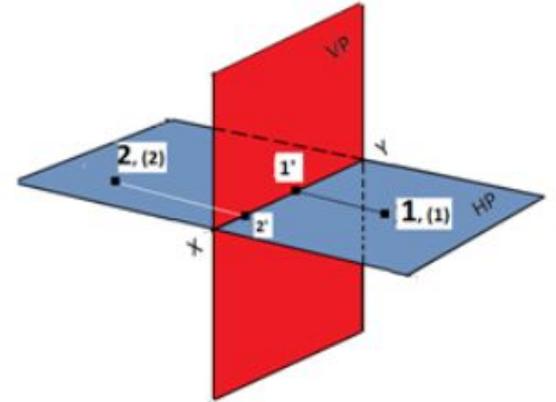
FOURTH QUADRANT

- Below HP in front of VP.

- PLAN (TV) – Below reference line.

- ELEVATION (FV) – Below reference line.
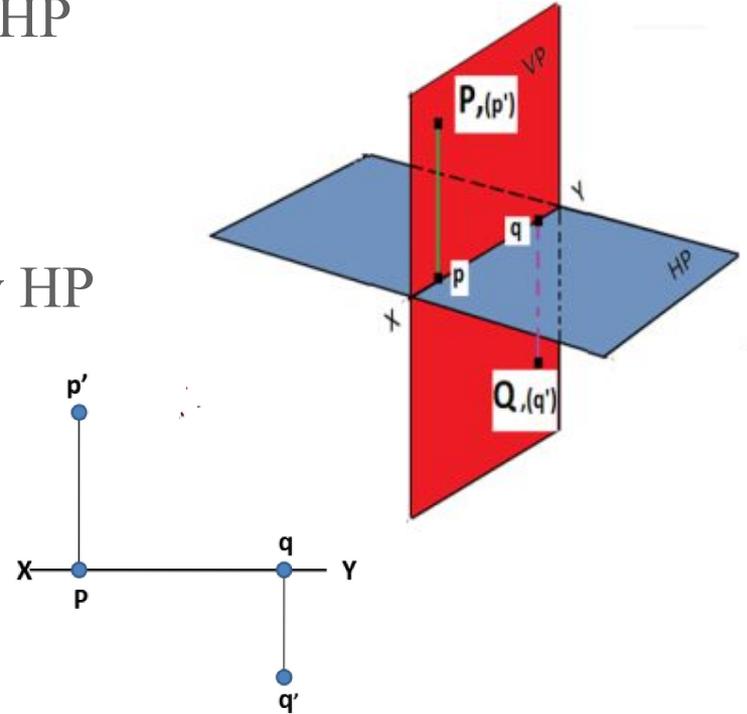

HP rotated clockwise by 90°

POINT ON HP

- Point on HP, its FV (elevation) on XY

- 1 - on HP & in front of VP

  FV on XY

  TV below XY

- 2 – on HP & behind VP

  FV on XY

  TV above XY
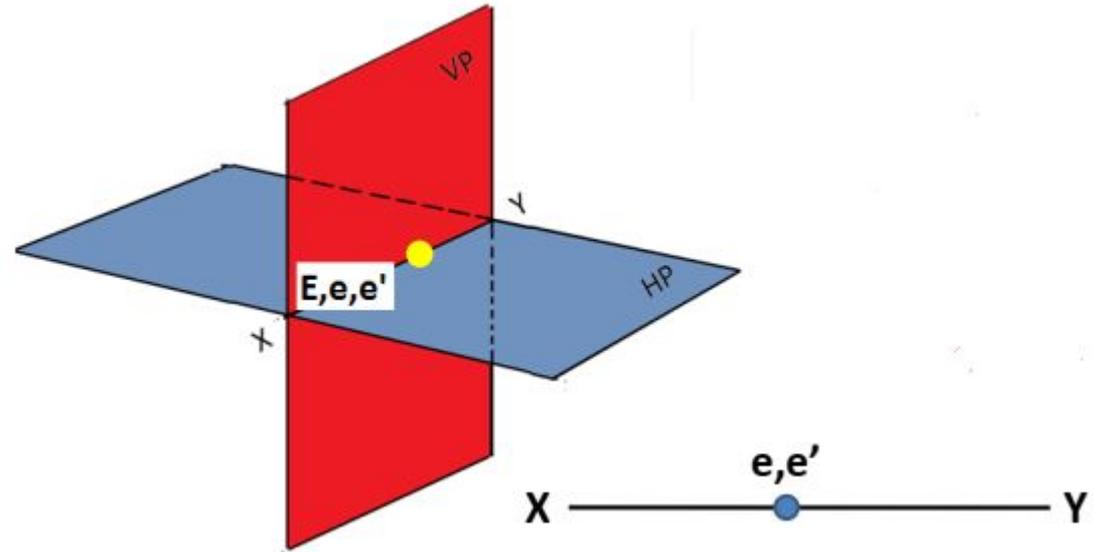
POINT ON VP

- Point on VP, its TV (plan) on XY
- P - on VP & above HP

  FV above XY

  TV on XY
- Q – on VP & below HP
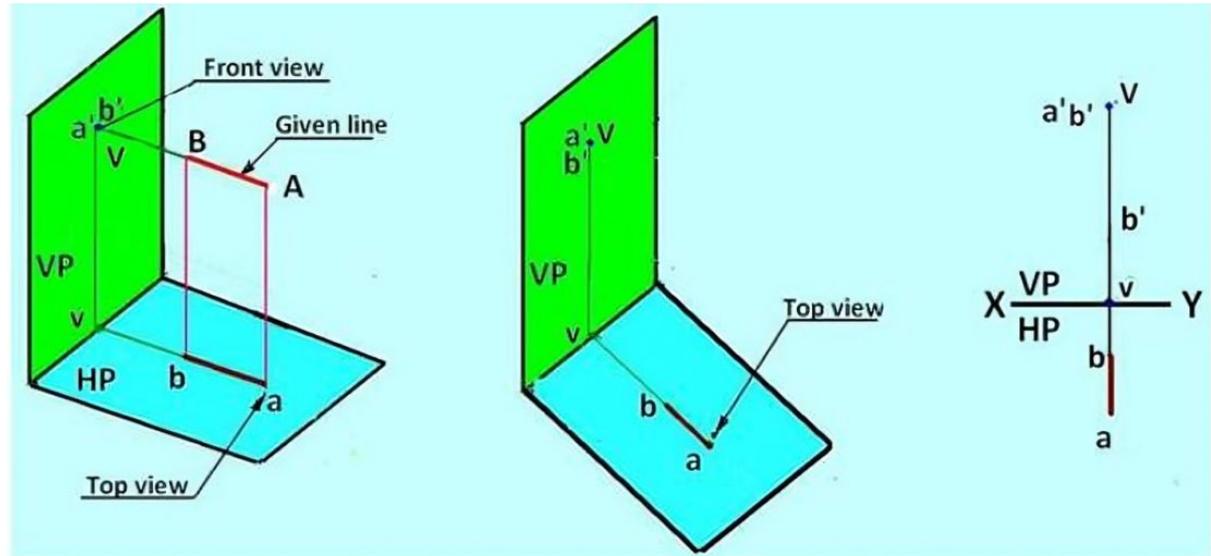
  TV on XY

  FV below XY

POINT ON BOTH HP & VP

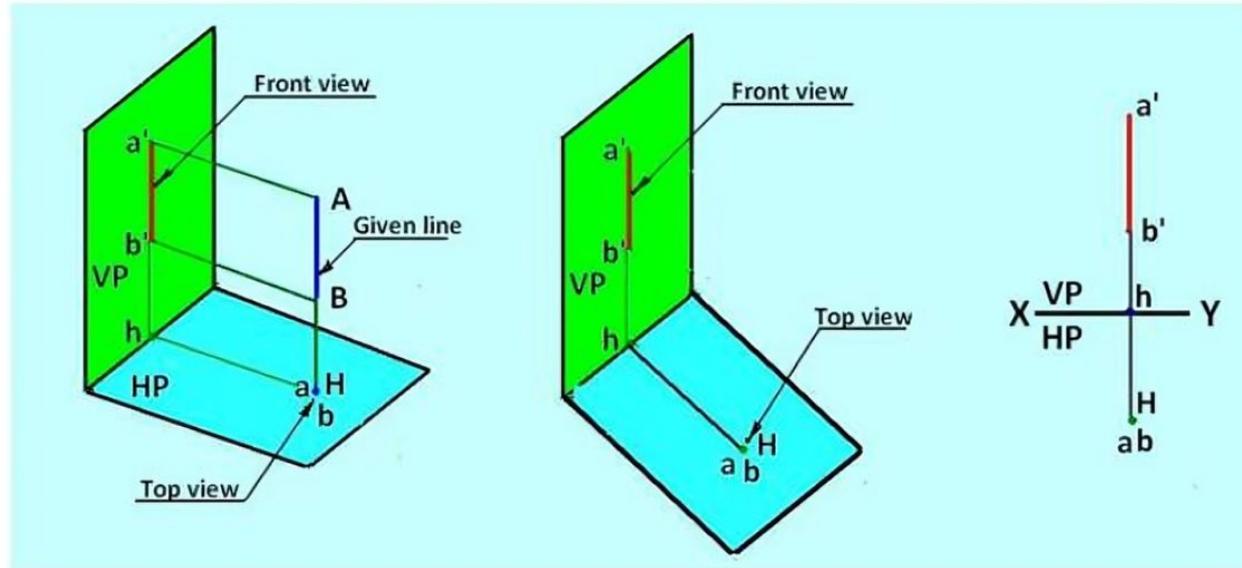● Front and Top views on XY

PROJECTION OF LINE

- Line parallel to HP and perpendicular to VP.
- PLAN (TV) – Straight line.
- ELEVATION (FV) – A Point.
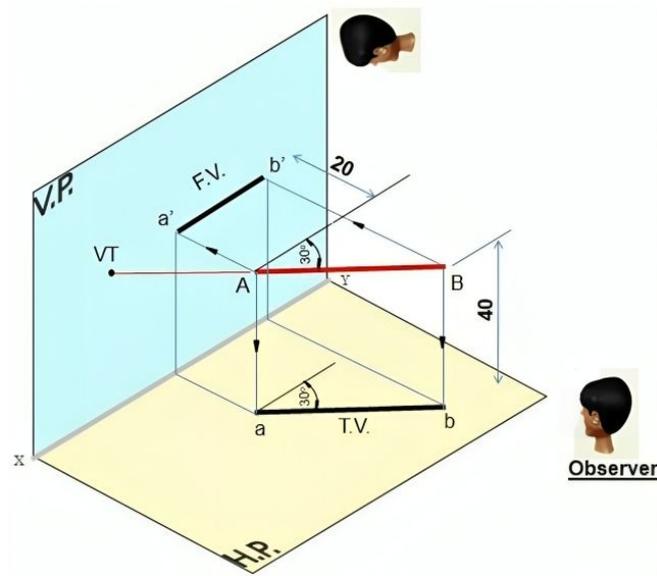
PROJECTION OF LINE

- Line parallel to VP and perpendicular to HP.

- PLAN – A Point.

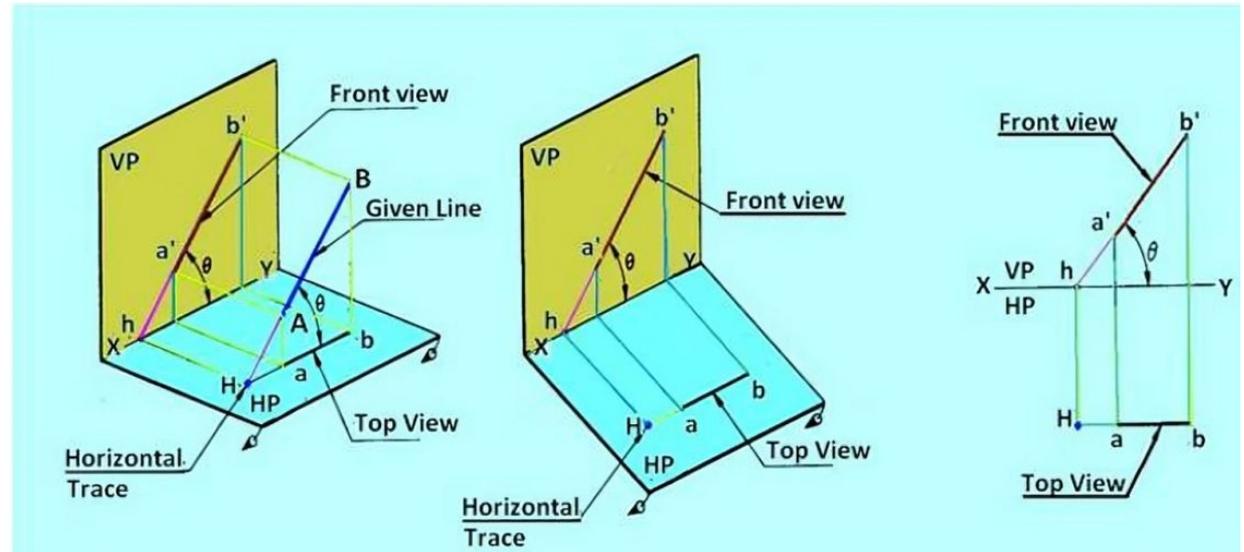- ELEVATION – A Straight line.

PROJECTION OF LINE

- Line inclined to VP and parallel to HP.
- PLAN – Inclined straight line.
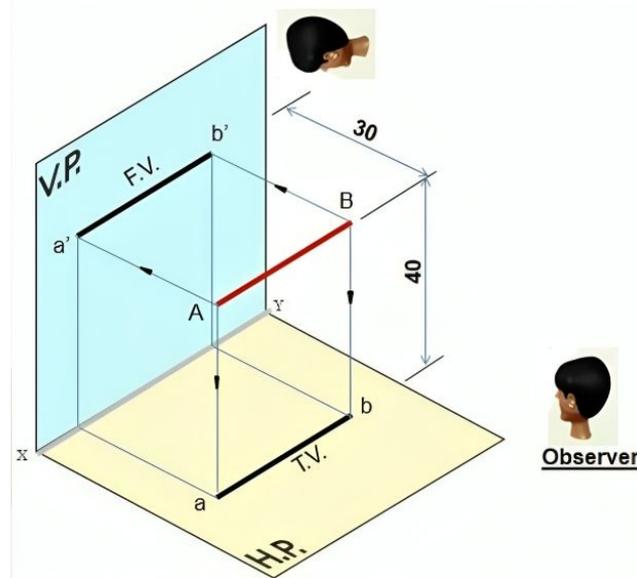- ELEVATION – A Straight line.

PROJECTION OF LINE

- Line is inclined to HP and parallel to VP.

- PLAN – A Straight line.

- ELEVATION – Inclined straight line.

PROJECTION OF LINE

- Line parallel to both HP & VP.

- PLAN – A Straight line.

- ELEVATION – A Straight line.

TRACES OF A LINE

- When a line is inclined or perpendicular to any one of reference plane it will meet that plane at a point , the point of meeting of the line with reference plane is called trace of the line or simply trace.

- The point of meeting of a line with HP is called horizontal trace HT.

- The point of meeting of a line with VP is called vertical trace VT.

TRACES OF A LINE

- Trace of a line is always a point.

- If a line is parallel to HP it has no horizontal trace HT.

- If a line is parallel to VP It has no vertical trace VT.

- If a line is perpendicular or inclined to HP it has horizontal trace HT.

- If a line is perpendicular or inclined to VP it has vertical trace VT.

TRACE OF A PLANE

- Trace of a plane is always a line.

- If a plane is parallel to HP it has no horizontal trace HT.

- If a plane is parallel to VP it has no vertical trace.

- If a plane is perpendicular or inclined to HP it has a horizontal trace HT.

- If a plane is perpendicular or inclined to VP it has a vertical trace.

THANK YOU