1) A point lying 20mm above the xy line represents the front view of 2 points E and F. The view of E is 35mm behind VP, and the top view of F is 40mm infront of VP. Draw projections of two points and state their positions with refrence planes and quadrant in which they lie.

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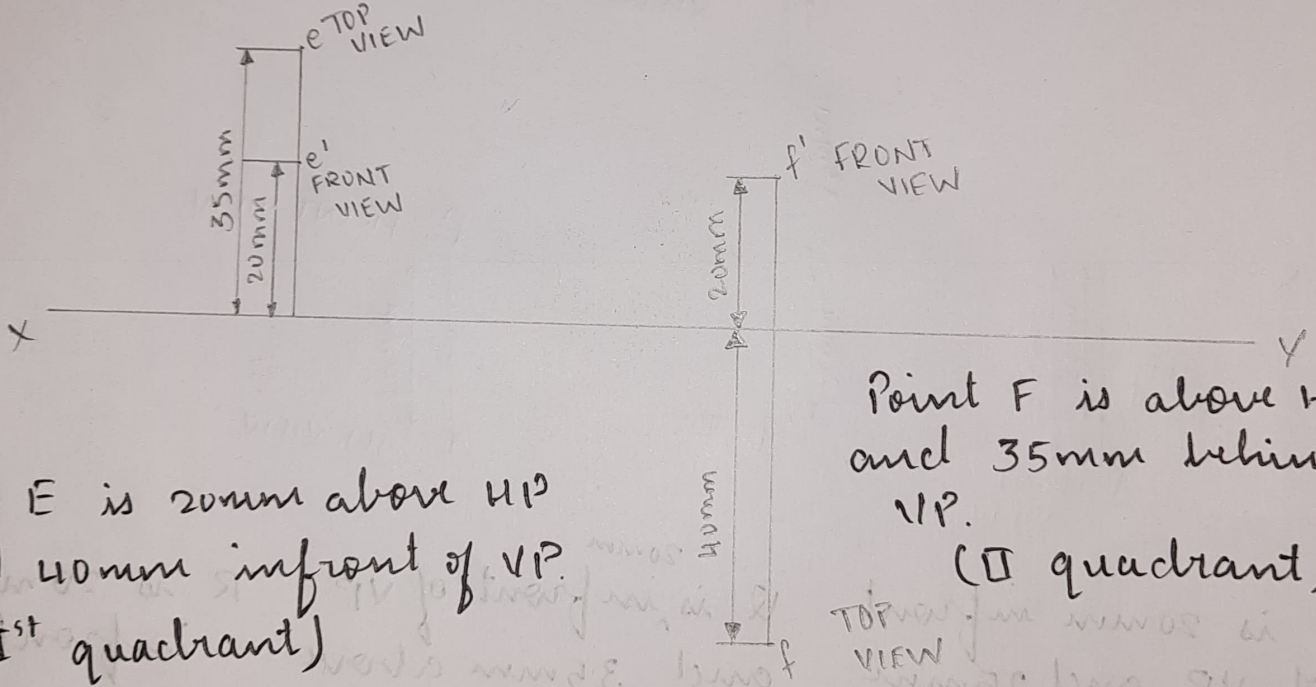
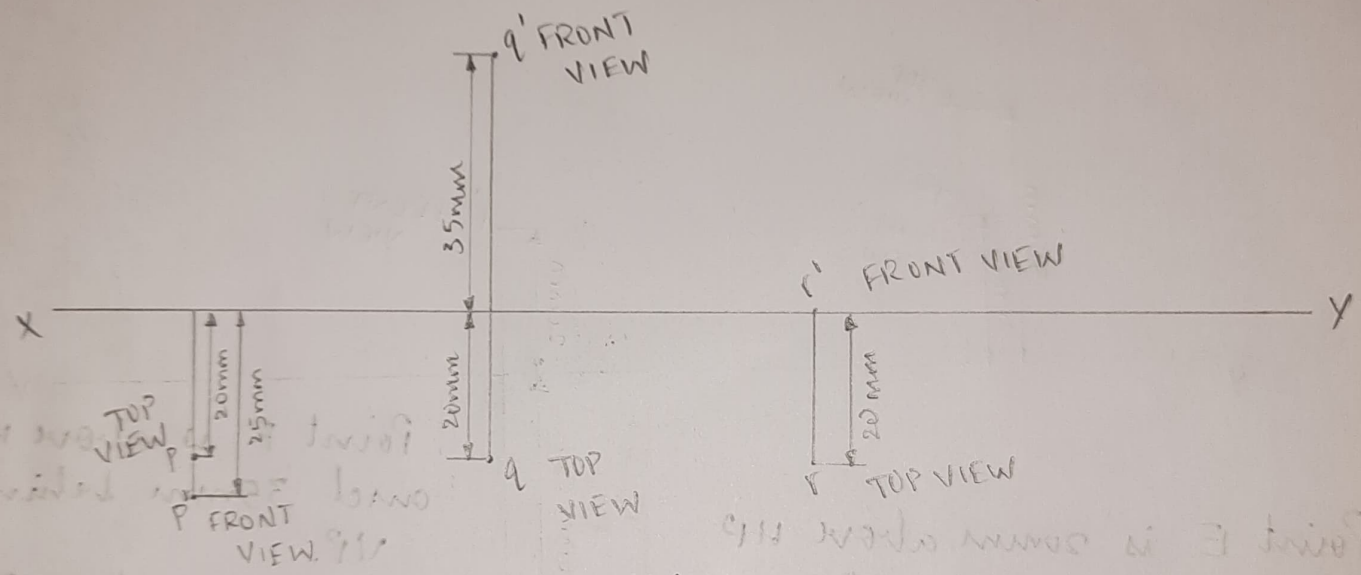



Point E is 20mm above HP and 40mm infront of VP.
(I st quadrant)

Point F is above HP and 35mm behind VP.
(II quadrant).

2) A point lying 20mm below the XY line is the top view of three points P, Q and R. P is 25 mm below HP. The point Q is 35mm above HP and the point R is in HP. Draw the projections of the three points and state their positions with the reference planes and the quadrants in which they lie.

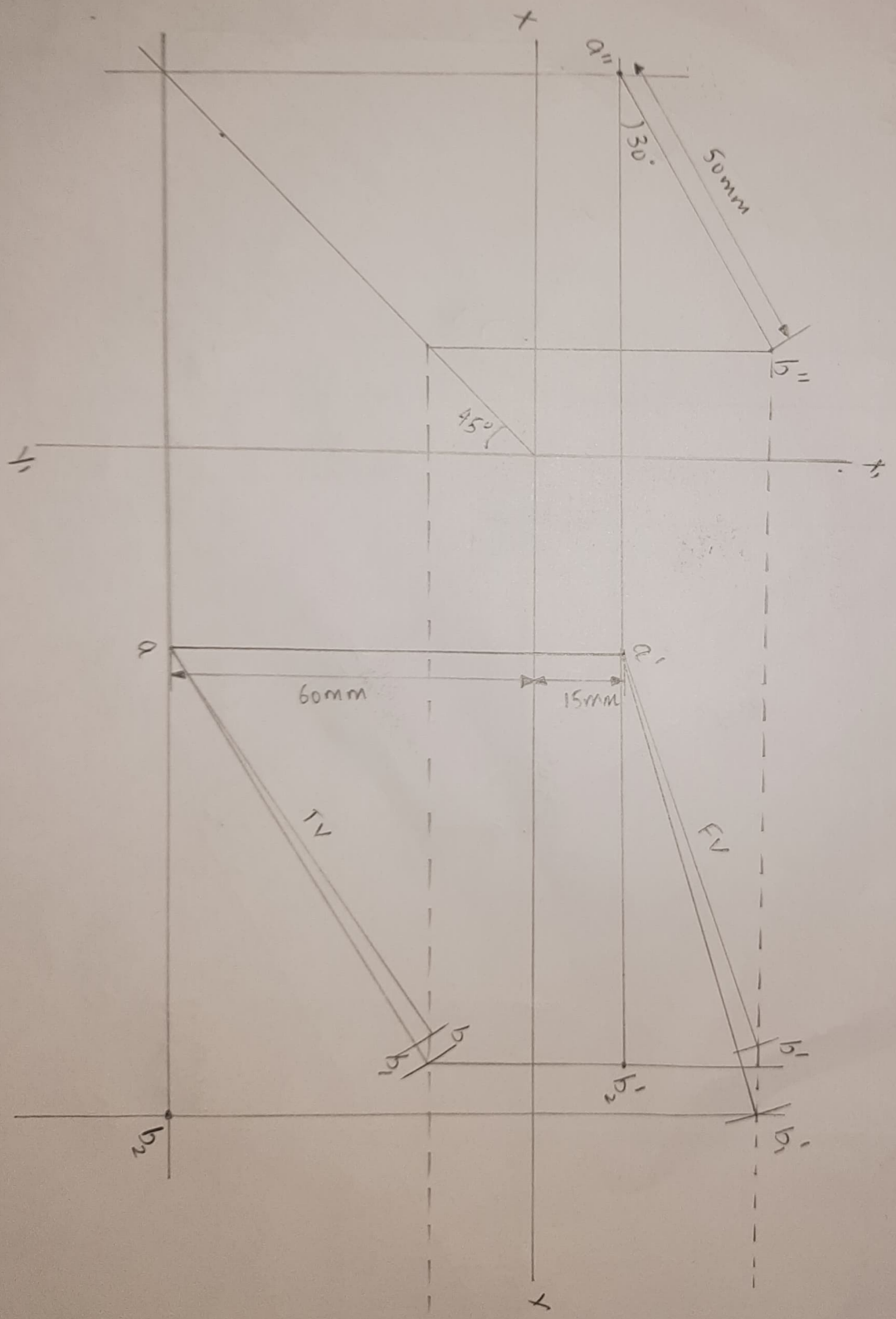



P is 20 mm infront of VP and 25 mm below HP.
(IV) quadrant

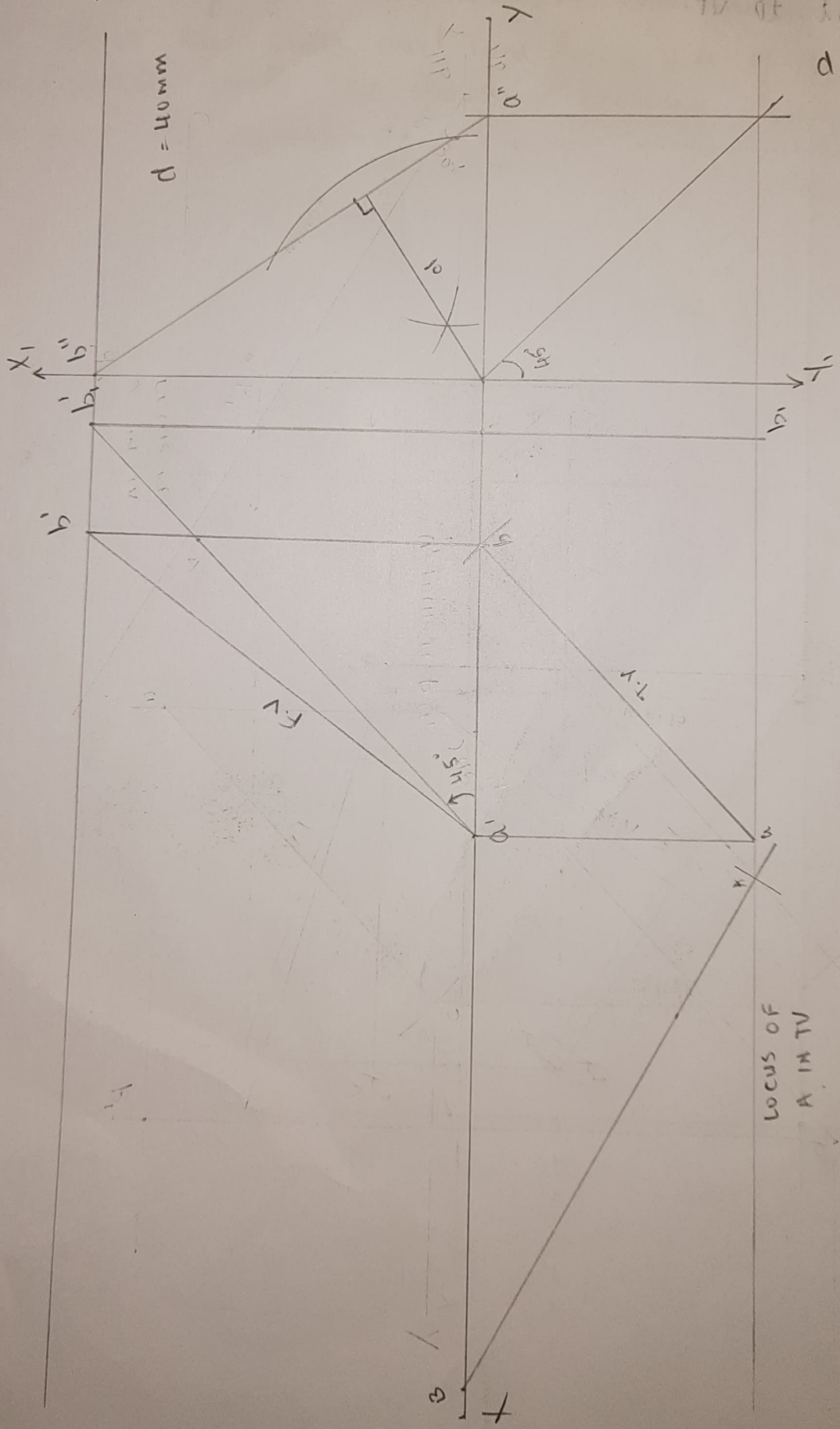
Q is 20mm infront of VP and 35 mm above HP.
(I) quadrant.

R is 20 mm infront of VP and in HP
(I$^{st}$ and IV) quadrant.

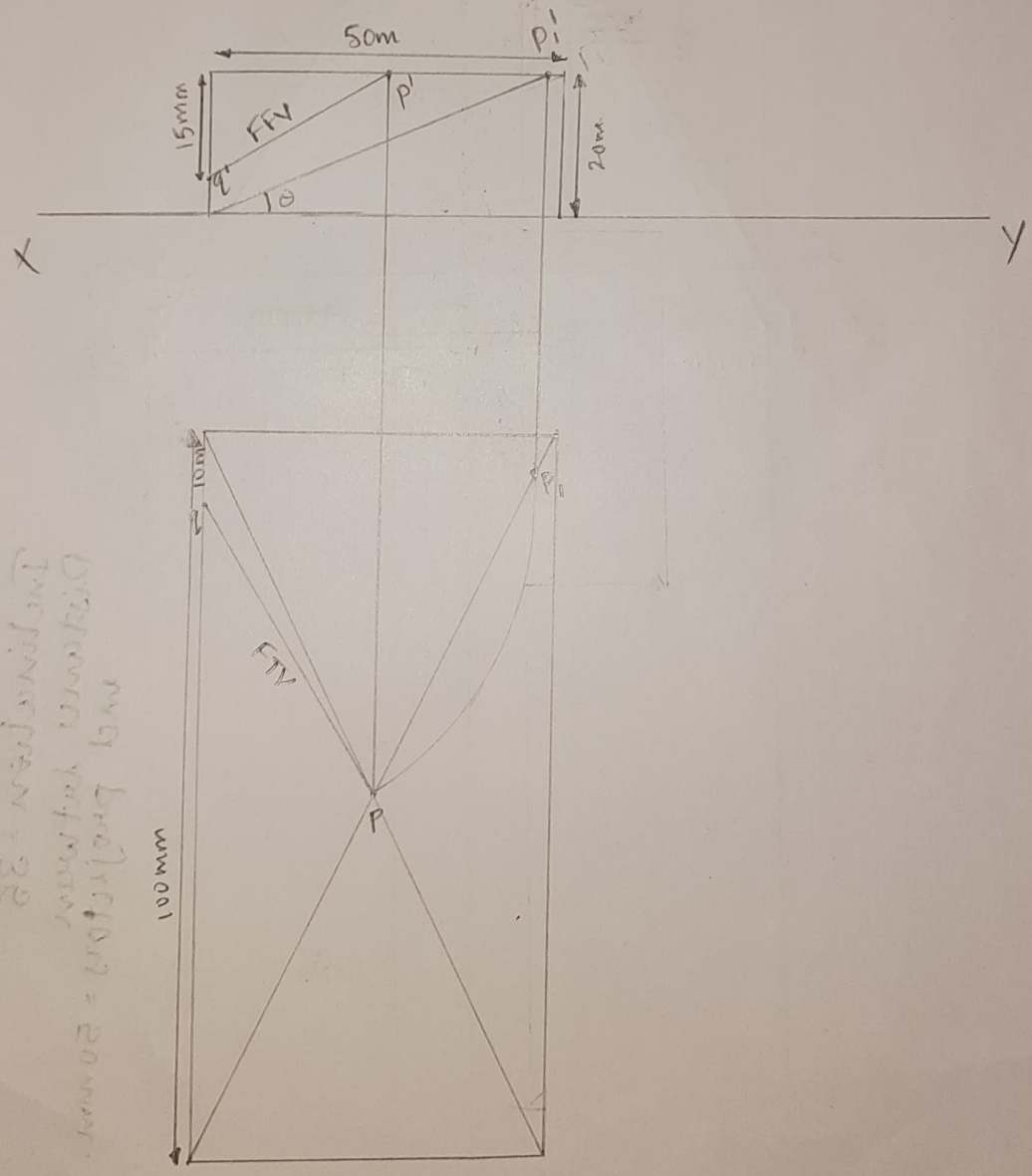
3) The right profile (or side view) of a line AB 80mm long, makes an angle of 30° to the xy line. Draw the top and front views of the line when the length of the profile view is 50mm. Take the point A to be 15mm above HP and 60mm infront of VP and point B being closest to VP.



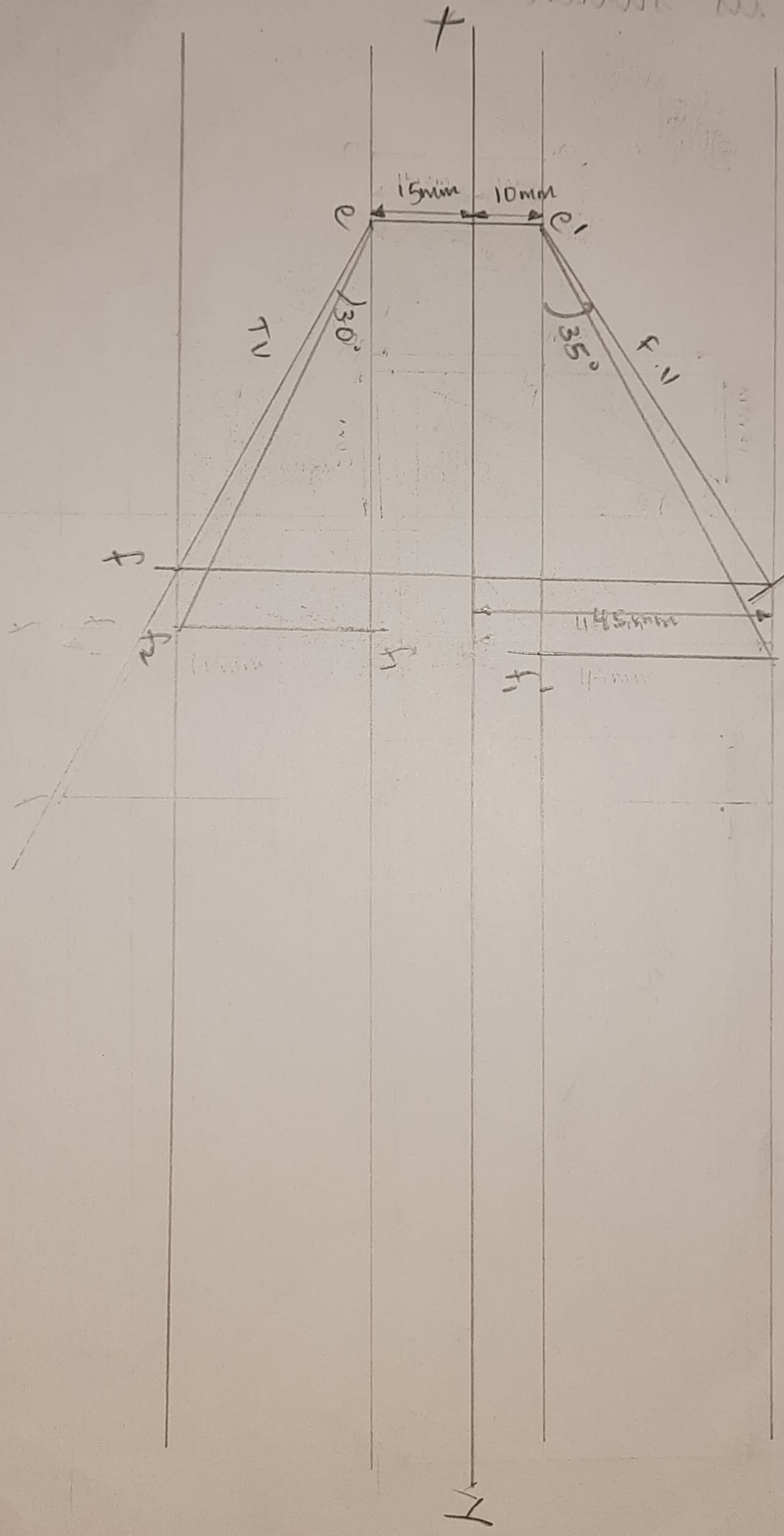
4) Draw the projections of a straight line AB, 100 mm long, inclined at 45° to HP and 30° to VP. The end A is in HP and end B is in VP. Find the shortest distance between the straight line AB and the line of intersection of planes of projection.



5) An auditorium of a college is having 100m length, 50m width and 20m height. One of the light points is fitted at the centre of the roof, and its switch is kept on one of the side walls of the auditorium, 1.5m above the floor and 10m from one of the adjacent wall. Find the distance between the light point and its switch.



6) Line EF has end E 10mm above HP and 15mm infront of VP. End F is 45mm above HP and the front view measures 60mm. The line is inclined at 30° to VP. Draw its projections, determine its true length, inclination with HP and distance between end projectors of this line.




TL = 70mm.
Inclination = 35°
Distance between end projectors = 50mm.