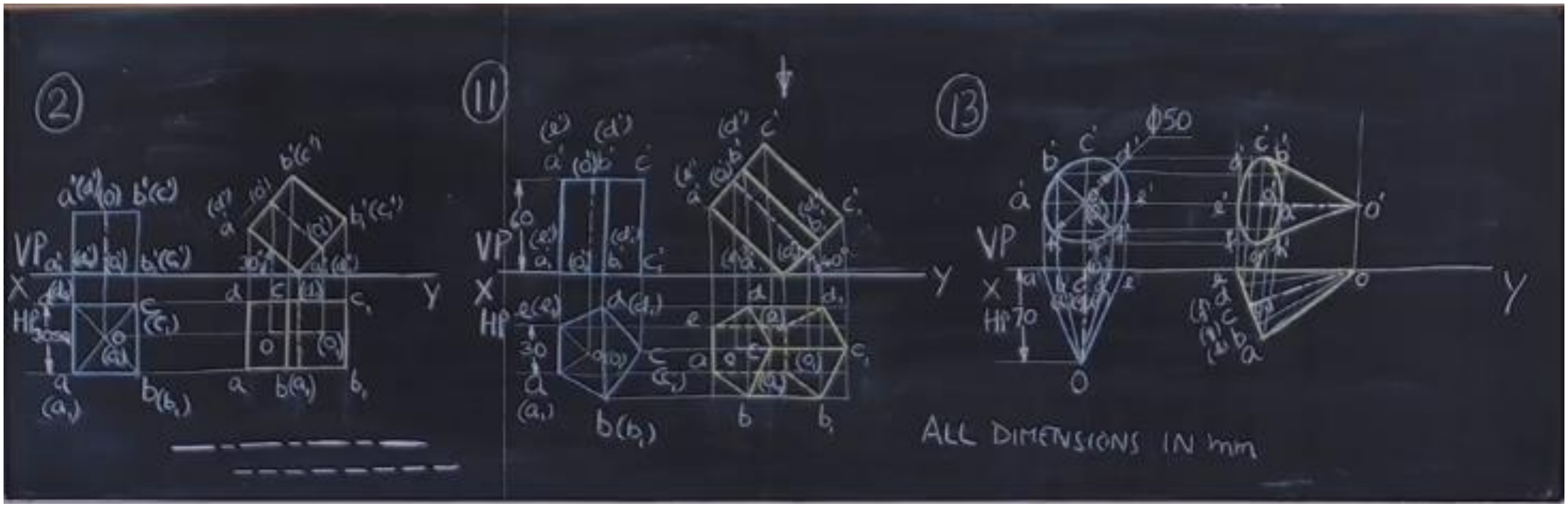
ENGINEERING GRAPHICS 1

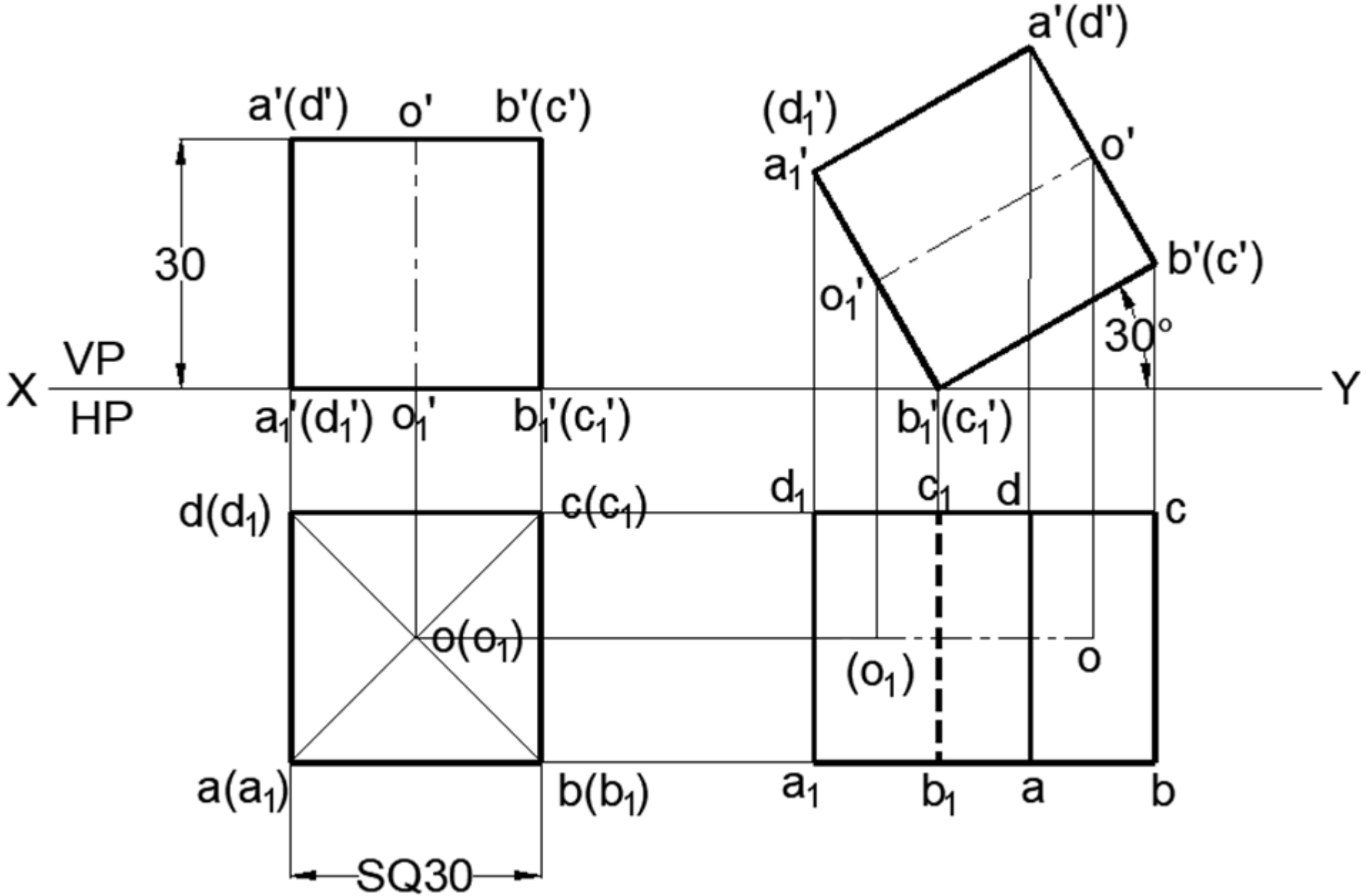
CLASS 6: PROJECTION OF SOLIDS 1

(SHEET 6)


2
VP
X
Y
HP
30
11
VP
X
Y
HP
30
13
VP
X
Y
HP 70
ϕ50
ALL DIMENSIONS IN mm

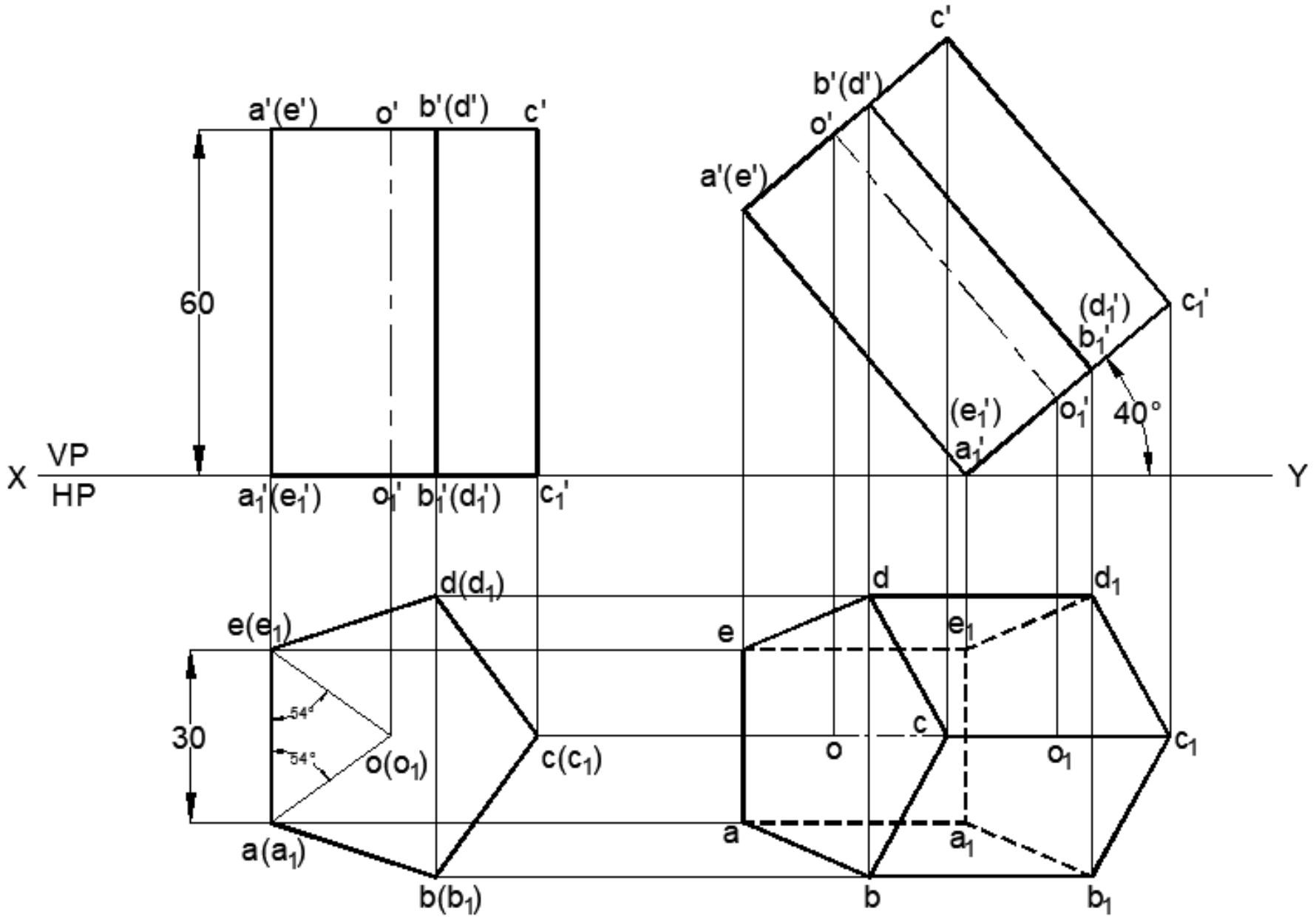
QUESTION BANK: PROJECTION OF PLANES - PROBLEM 2

A cube of 30 mm sides is resting on HP on one of its sides. One of the square faces containing that side is inclined at 30° to HP. Draw the projections.



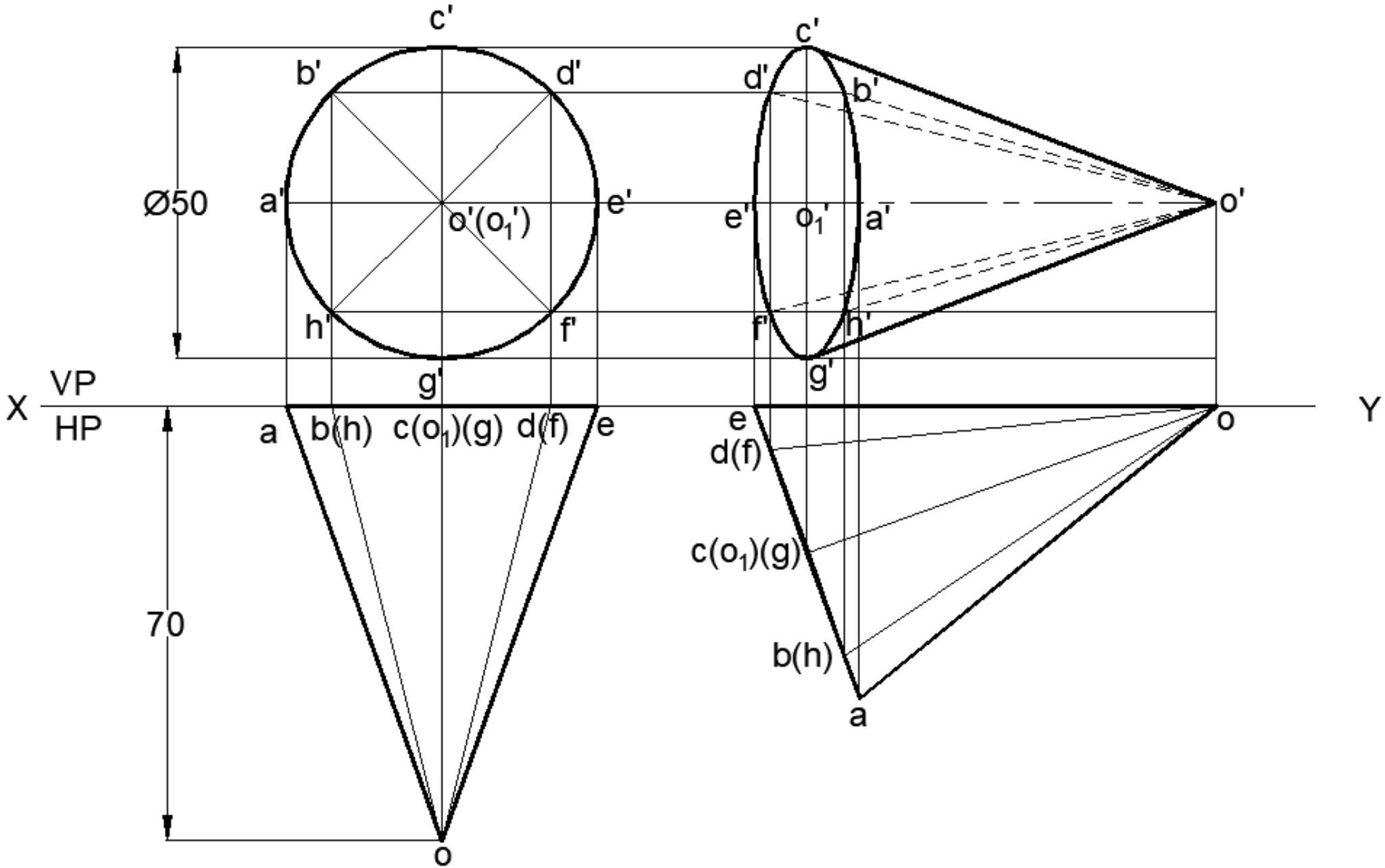
QUESTION BANK: PROJECTION OF PLANES - PROBLEM 11

A pentagonal prism of 30 mm sides of base and 60 mm long axis rests on HP on one of its edges of the base. Draw its projections of the prism when the base is inclined at 40° to HP.



QUESTION BANK: PROJECTION OF PLANES - PROBLEM 13

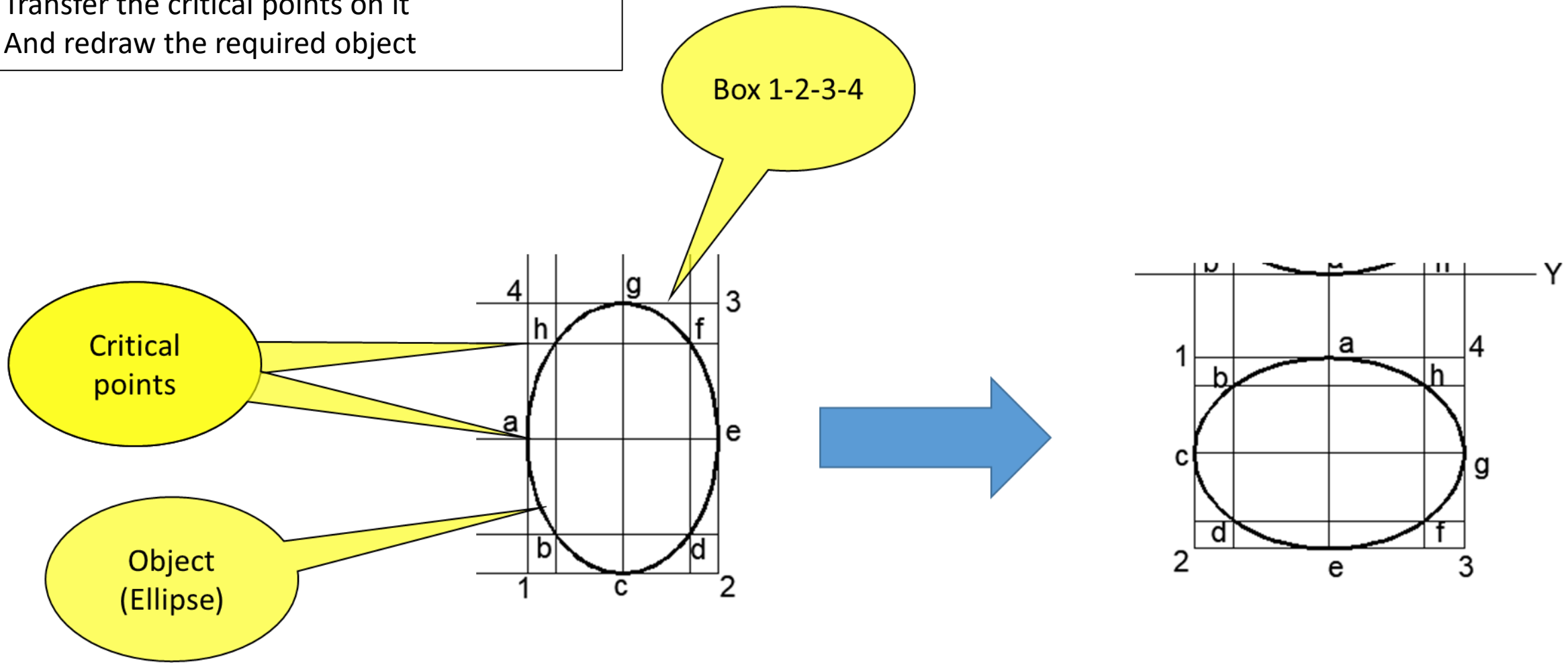
A cone of base diameter 50 mm and 70 mm long axis has one of its generators on VP. Draw its projections when the axis is parallel to HP.



Methods to rotate and transfer objects without distortion

1) BOX METHOD

- Engulf the object with a box
- Mark all critical points
- Construct the box at the required location
- Transfer the critical points on it
- And redraw the required object



2) DISTANCE METHOD

- Works on the principle of location of third point with respect to existing two points constructing a triangle
- Transfer the main line at the required orientation
- Mark two critical points on it
- Locate the distance of third point with respect to its distance from the two points by cutting intersecting arcs using compass
- Carry out the same procedure for other points
- If the object is symmetric, many distances will be equal, so at one setting of compass many arcs at relevant positions can be cut thus saving time
- Join all the intersections