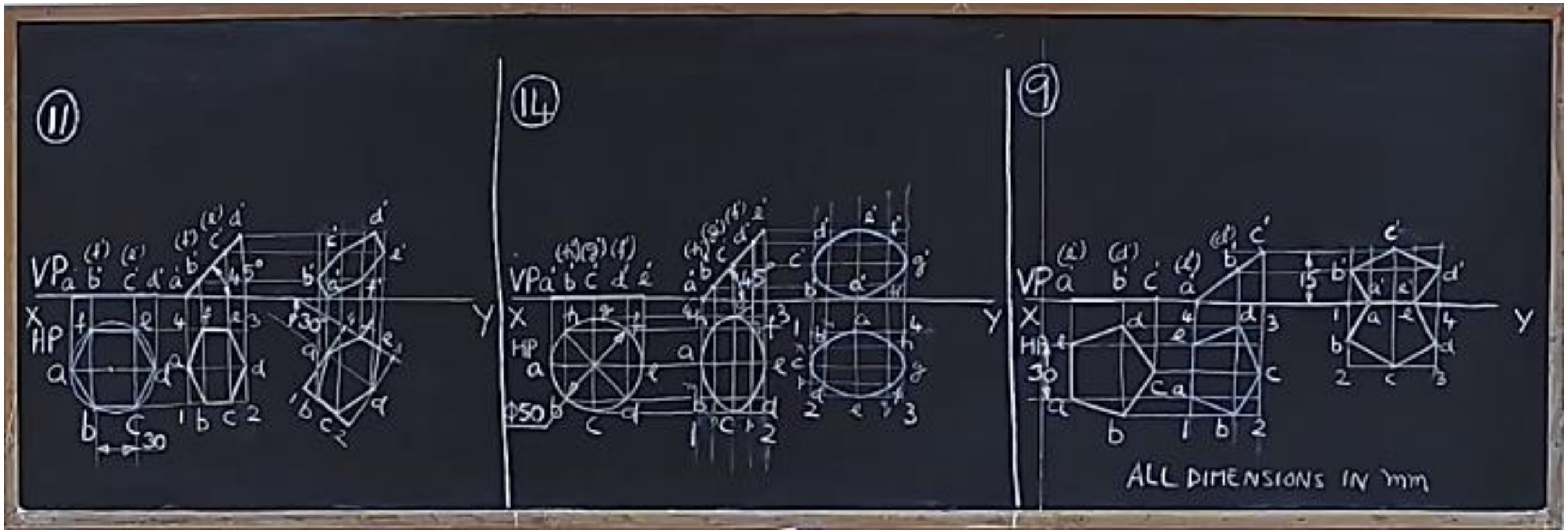
ENGINEERING GRAPHICS 1

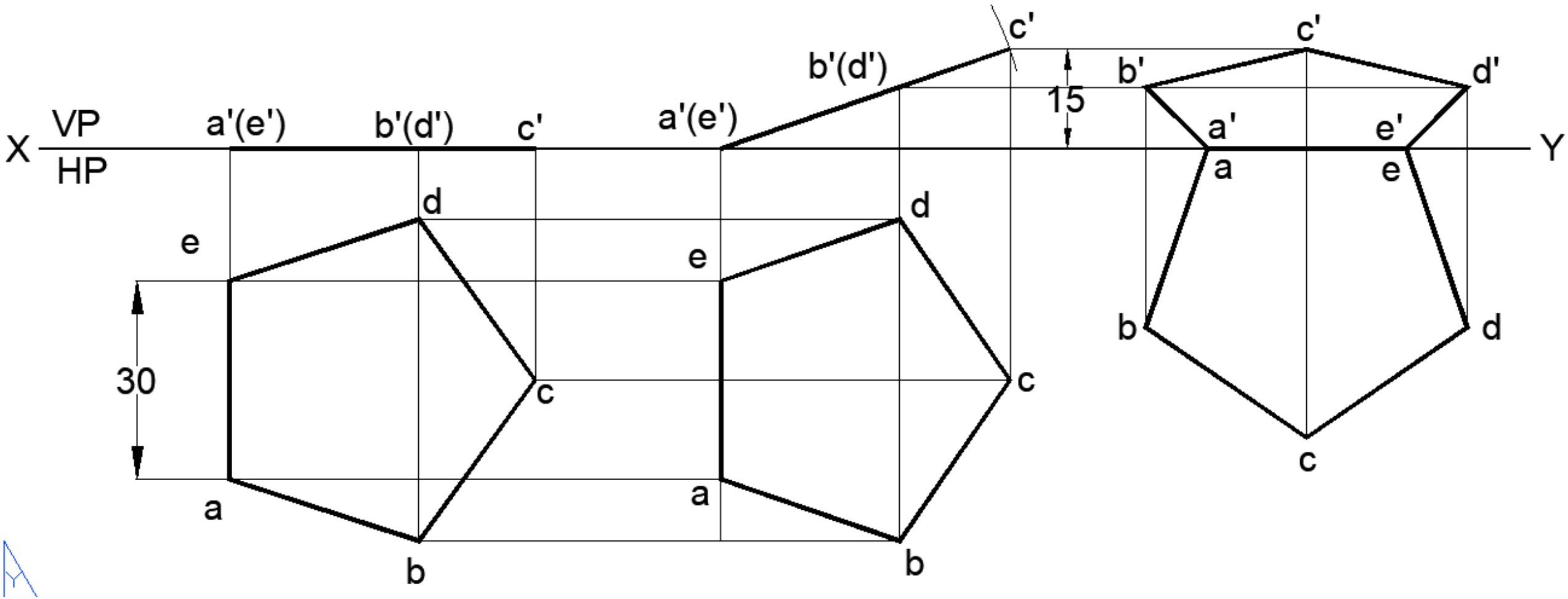
CLASS 5: PROJECTION OF PLANES 2

(SHEET 5)


11
VP
HP
X
Y
45°
30
14
VP
HP
X
Y
45
50
9
VP
HP
X
Y
15
30
ALL DIMENSIONS IN mm

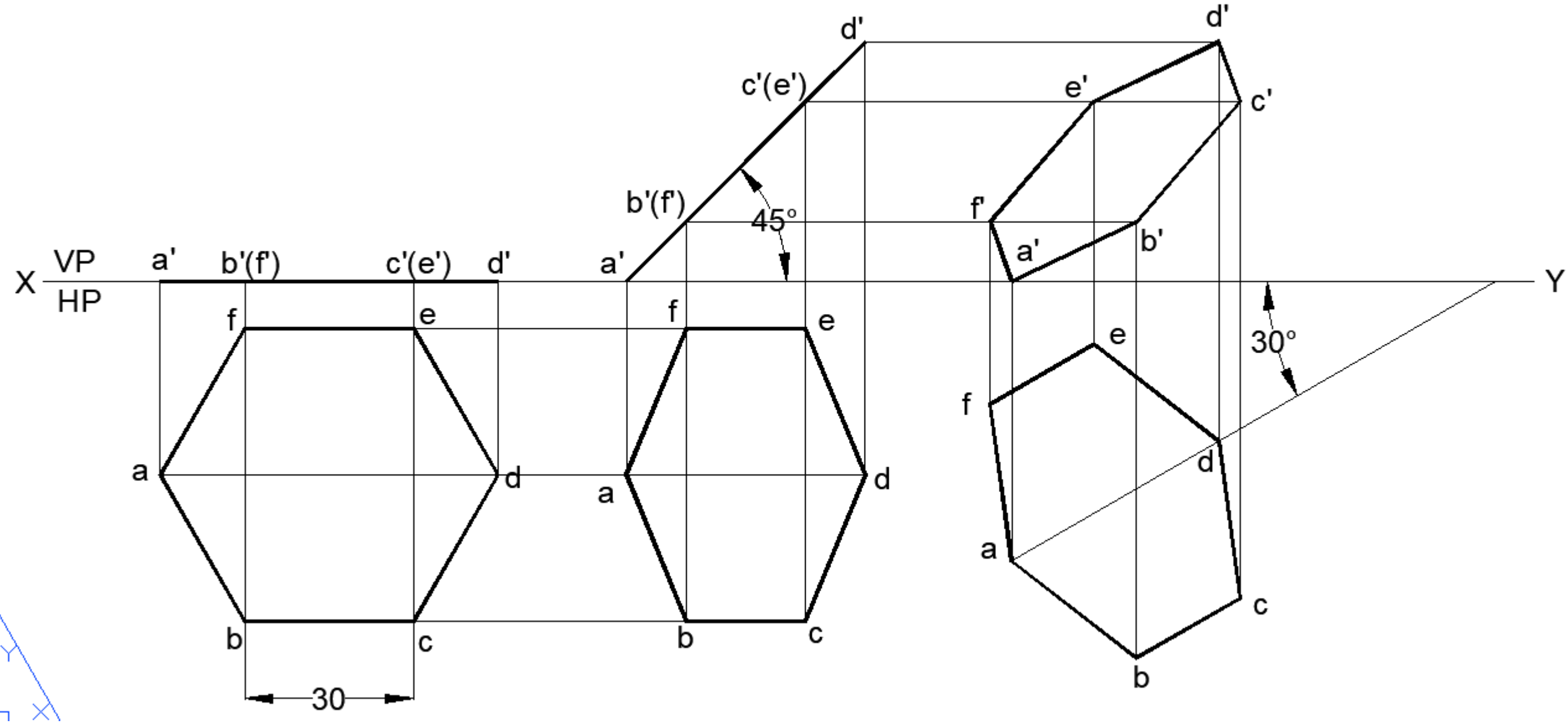
QUESTION BANK: PROJECTION OF PLANES - PROBLEM 9

A pentagonal lamina of sides 30 mm is having a side both on HP & VP. The corner opposite to the side on which it rests is 15 mm above HP. Draw the top & front views of the lamina.



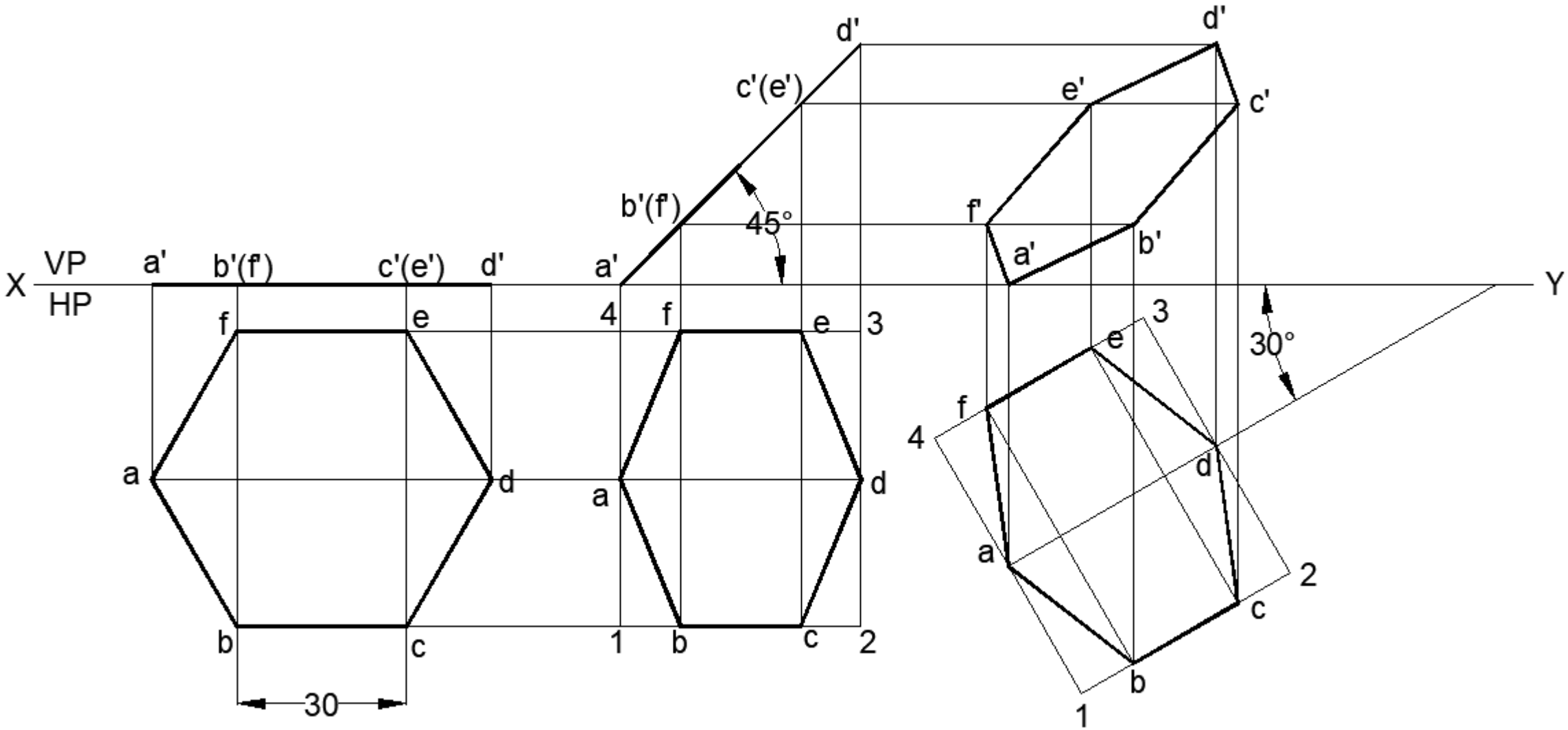
QUESTION BANK: PROJECTION OF PLANES - PROBLEM 11

A hexagonal lamina of sides 30 mm rests on one of its corners on HP. The lamina makes 45° to HP and the diagonal passing through the corner on which it rests appears to be inclined at 30° to VP. Draw its projections.



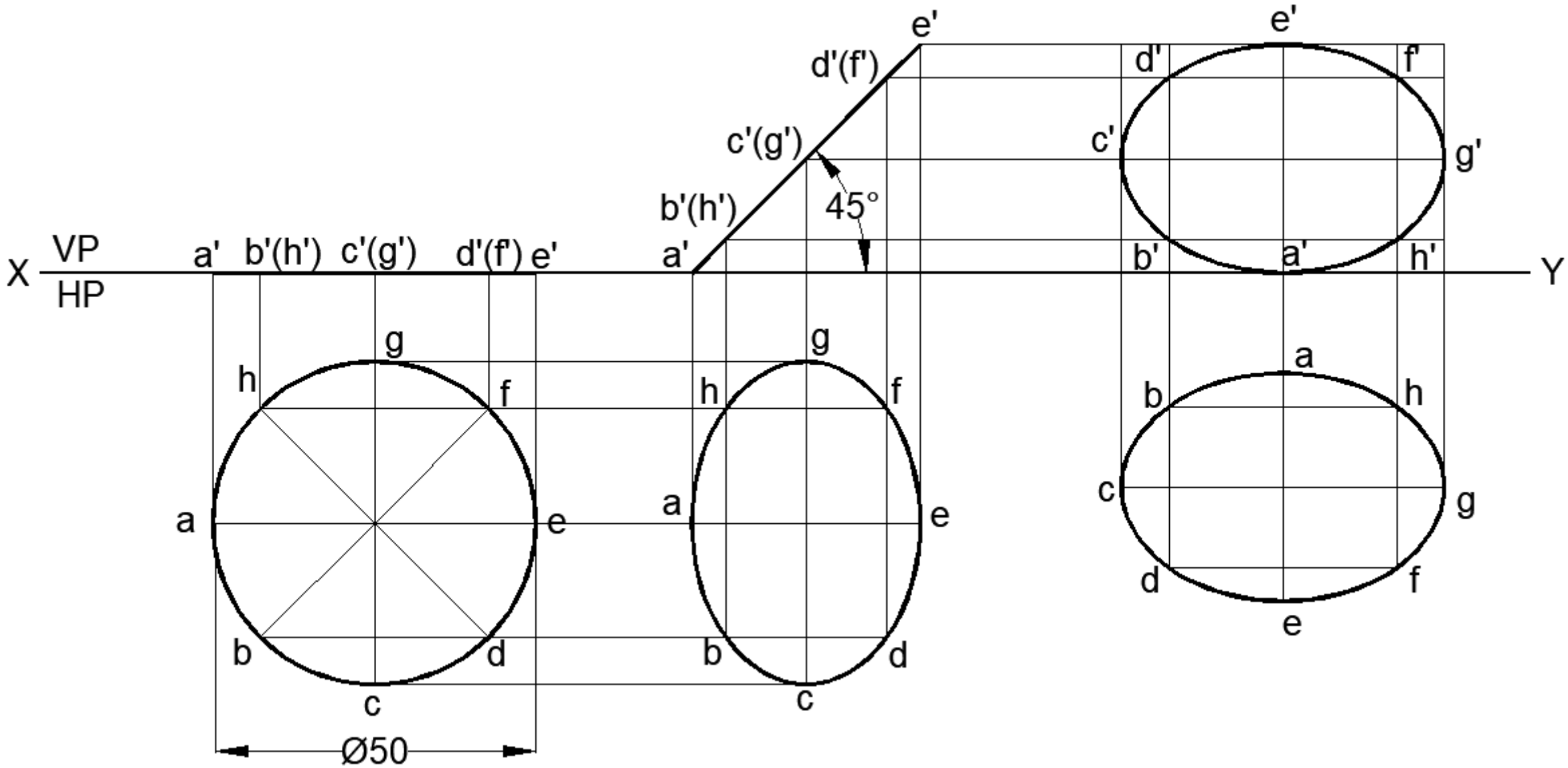
QUESTION BANK: PROJECTION OF PLANES - PROBLEM 11

A hexagonal lamina of sides 30 mm rests on one of its corners on HP. The lamina makes 45° to HP and the diagonal passing through the corner on which it rests appears to be inclined at 30° to VP. Draw its projections.



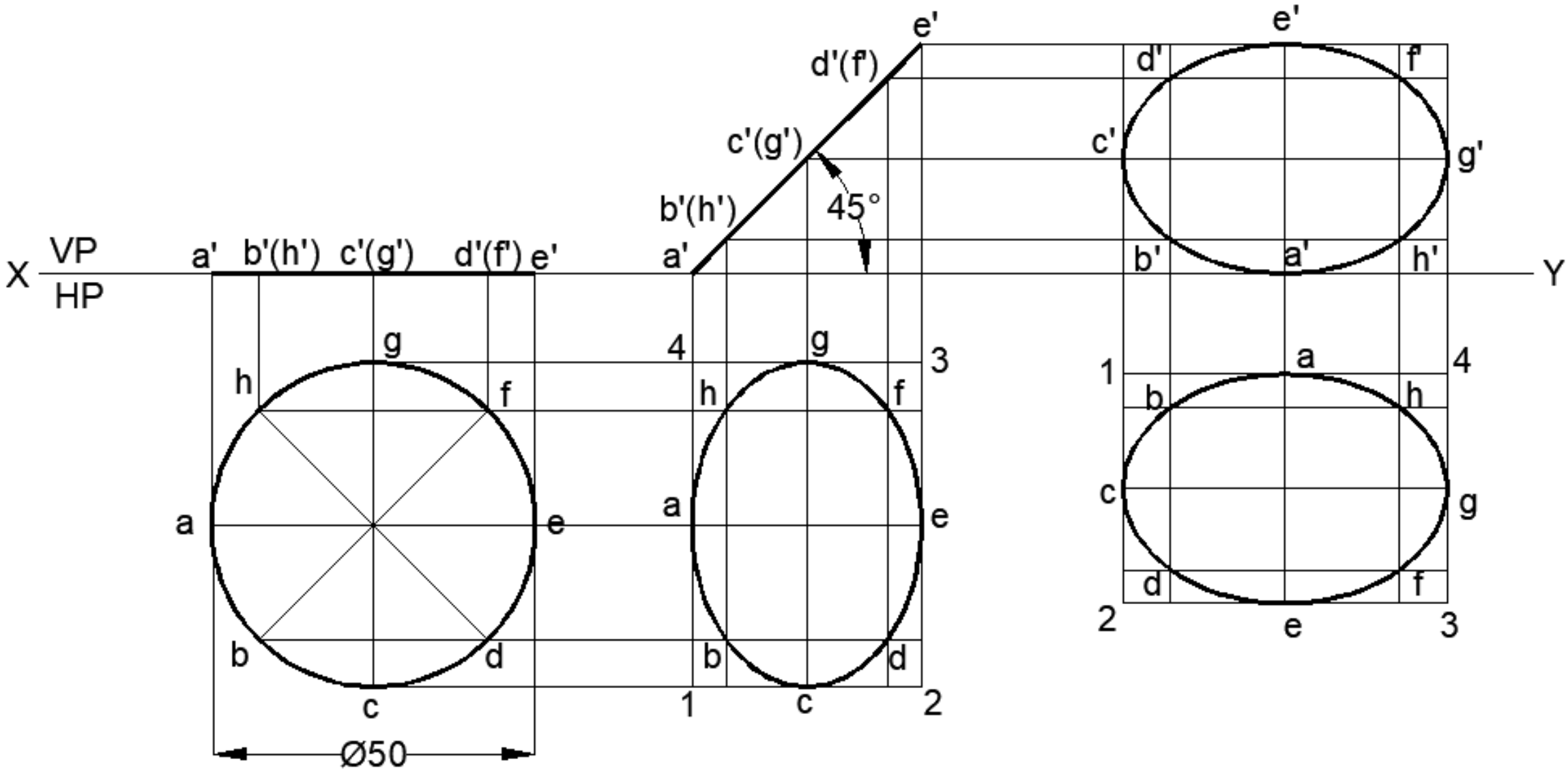
QUESTION BANK: PROJECTION OF PLANES - PROBLEM 14

A circular lamina of 50 mm diameter is standing with one of it points of the rim on HP and the surface is inclined at 45° to HP. The diameter at right angle to the diameter that is passing through the point on which the lamina rests is parallel to VP. Draw its projections.



QUESTION BANK: PROJECTION OF PLANES - PROBLEM 14

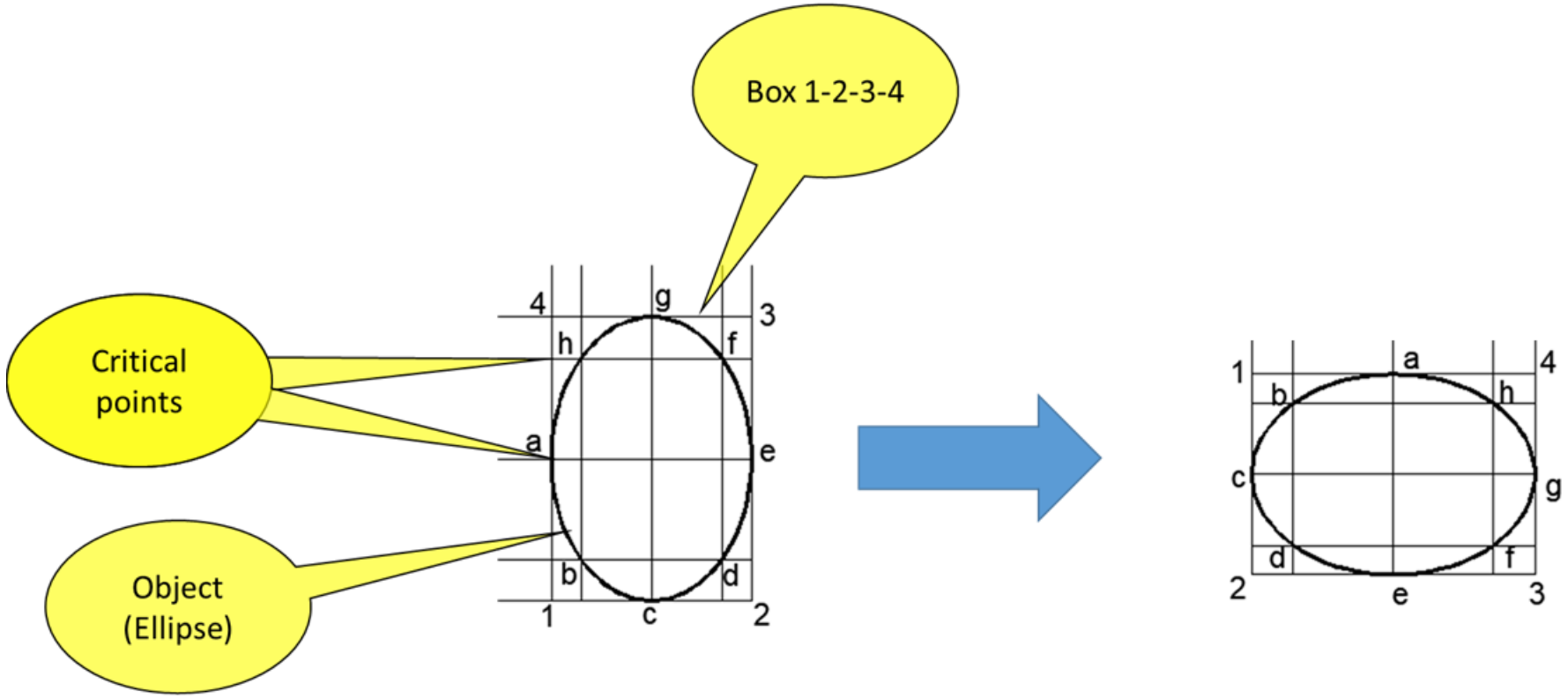
A circular lamina of 50 mm diameter is standing with one of it points of the rim on HP and the surface is inclined at 45° to HP. The diameter at right angle to the diameter that is passing through the point on which the lamina rests is parallel to VP. Draw its projections.



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