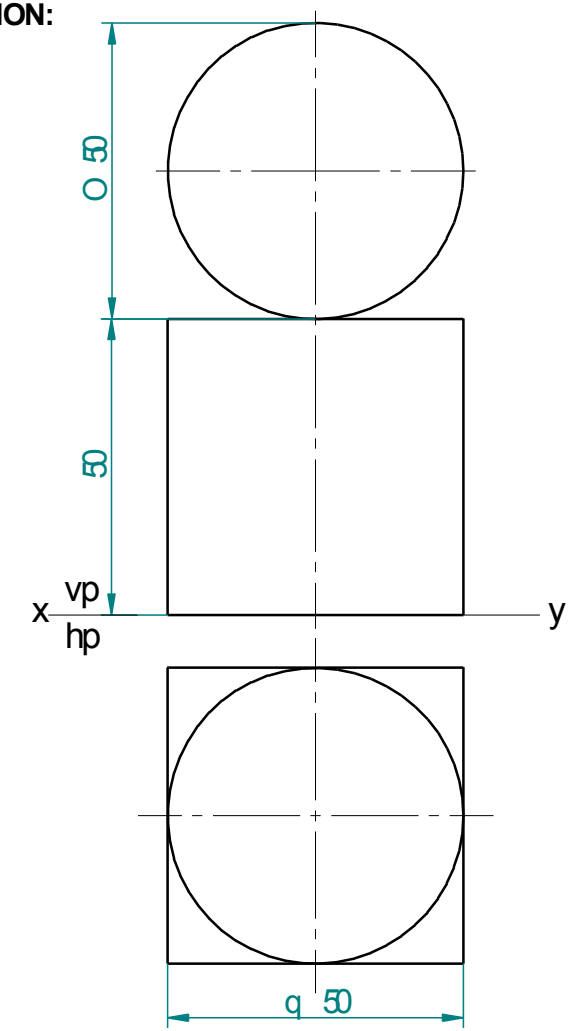
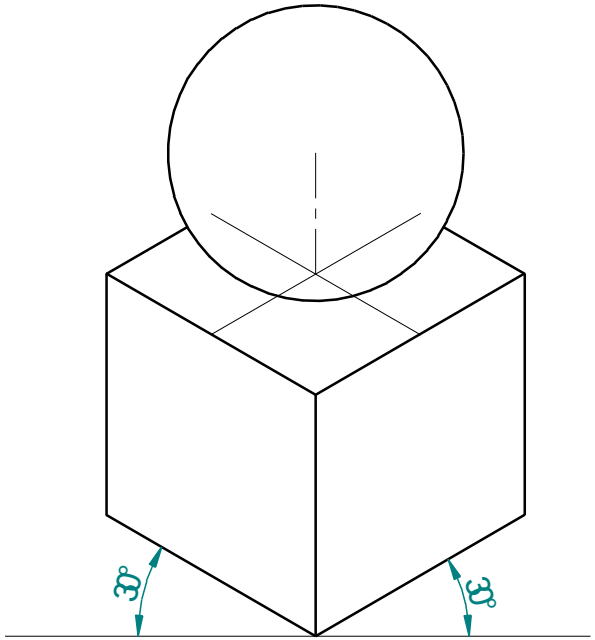
1. A sphere of diameter 50 mm rests centrally on top of a cube of sides 50 mm. Draw the isometric projections of the combination of solids

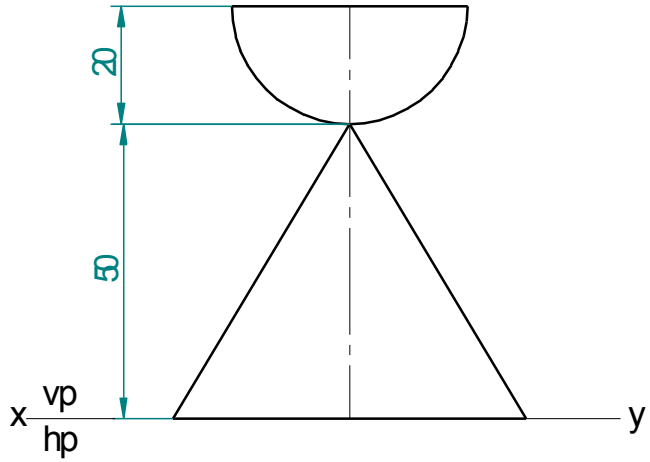
SOLUTION:

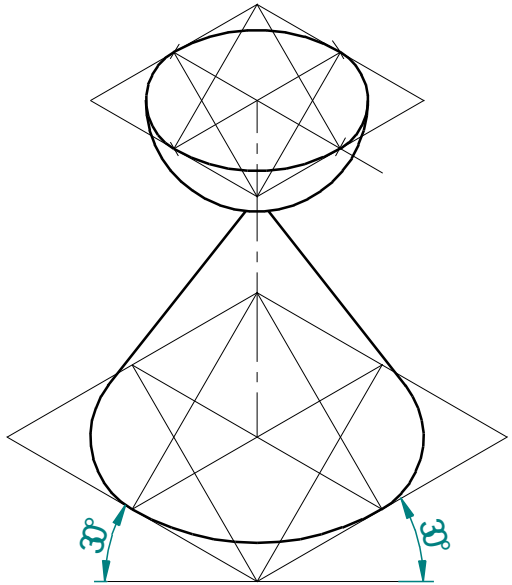




2. **A hemisphere of 40 mm diameter is supported co-axially on the vertex of a cone of base diameter 60 mm length 50 mm. The flat circular face of the hemisphere is facing upside. Draw the isometric projection of the combination of solids**

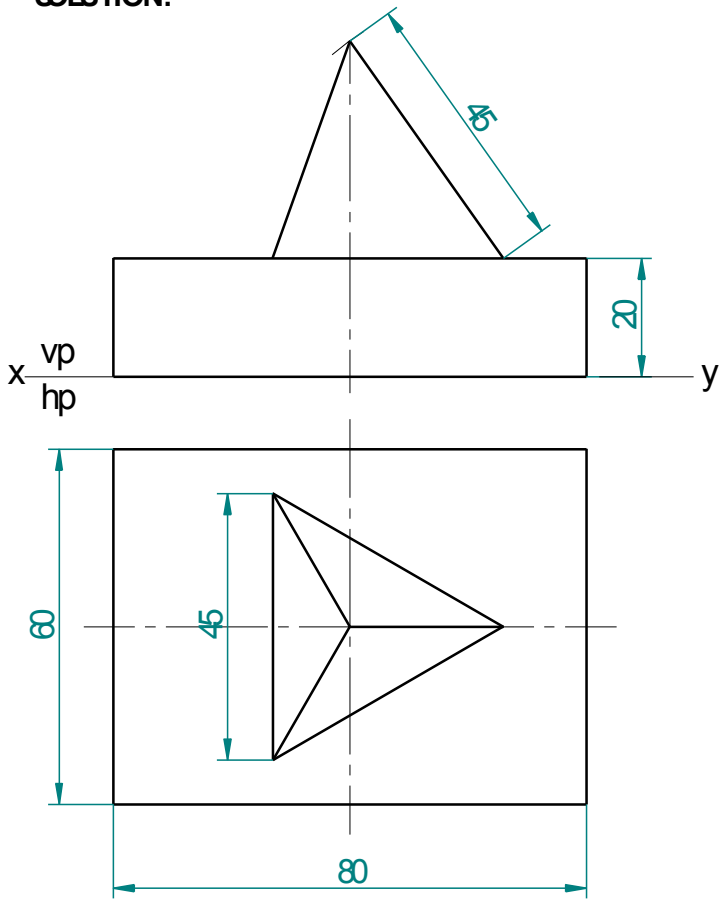
SOLUTION:

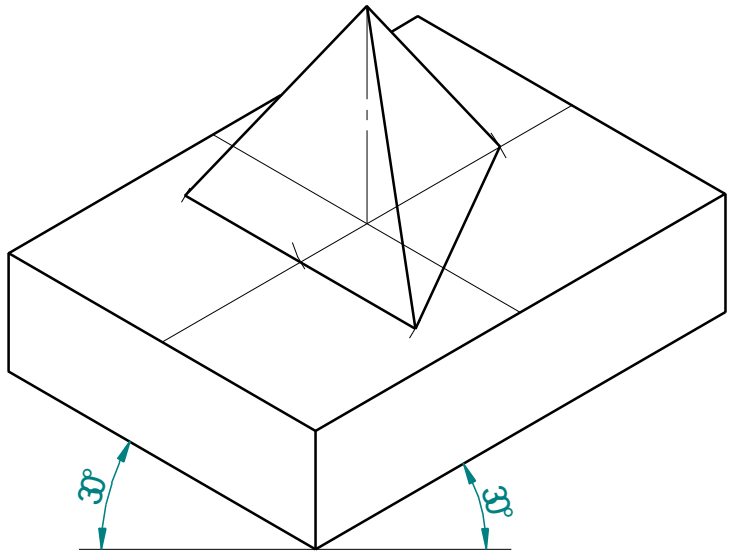




3. **Draw the isometric projection of a rectangular prism of 60 x 80 x 20 mm thick surmounting a tetrahedron of sides 45 mm such that the axes of the solids are collinear and atleast one of the edges of both the solids are parallel to VP.**

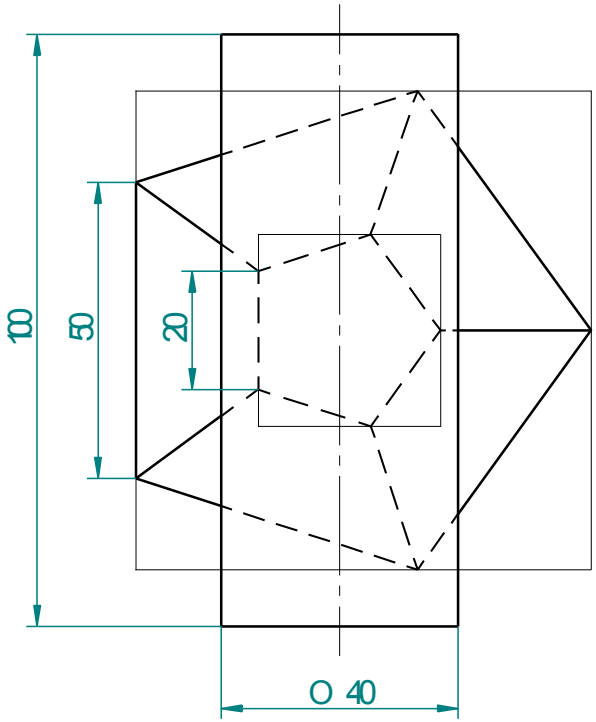
SOLUTION:

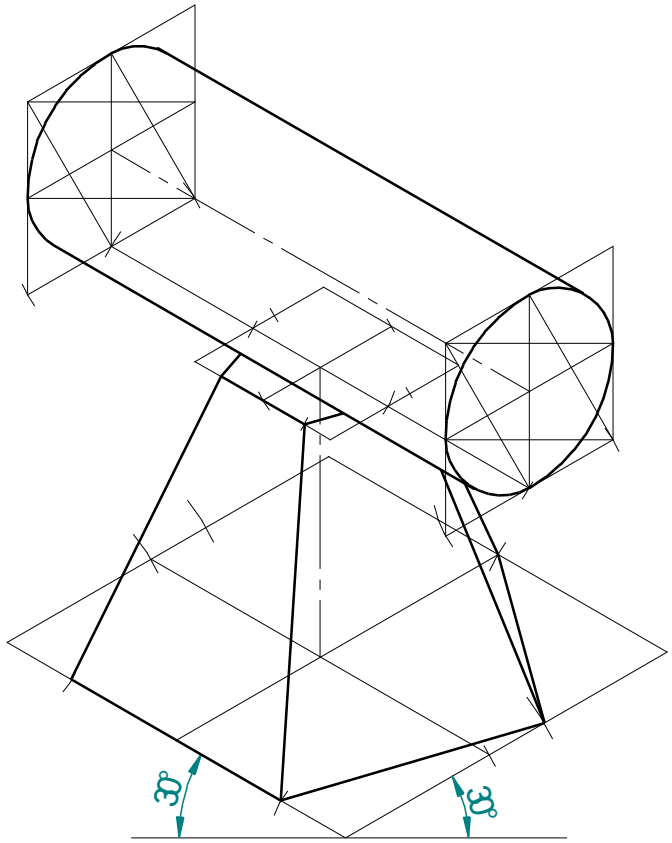




4. **Following figure shows the top view of a cylinder which is centrally mounted on a frustum of a pentagonal pyramid of 60 mm height. Draw the isometric projection of the combination of solids.**

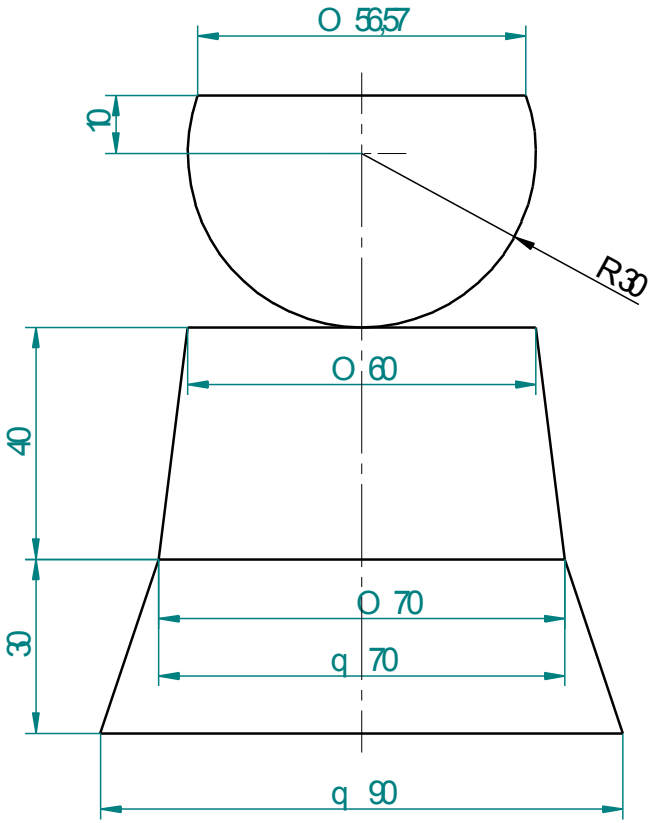
SOLUTION:

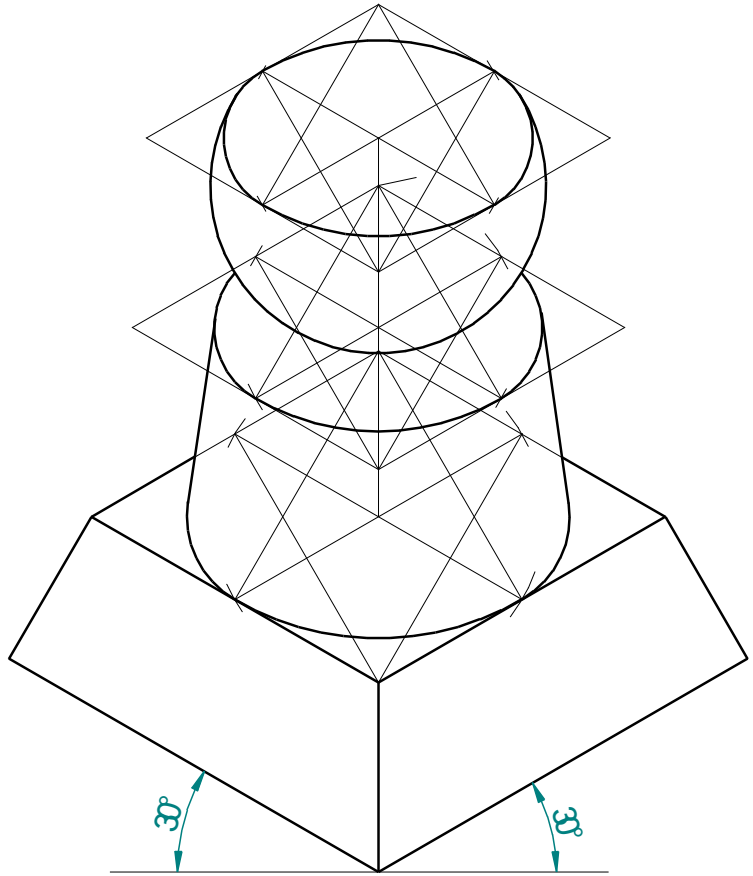




5. **Following figure shows the front view of combination of solids consisting a cut sphere and frustum of a cone and a square pyramid. Draw the Isometric projection of the combination of solids**

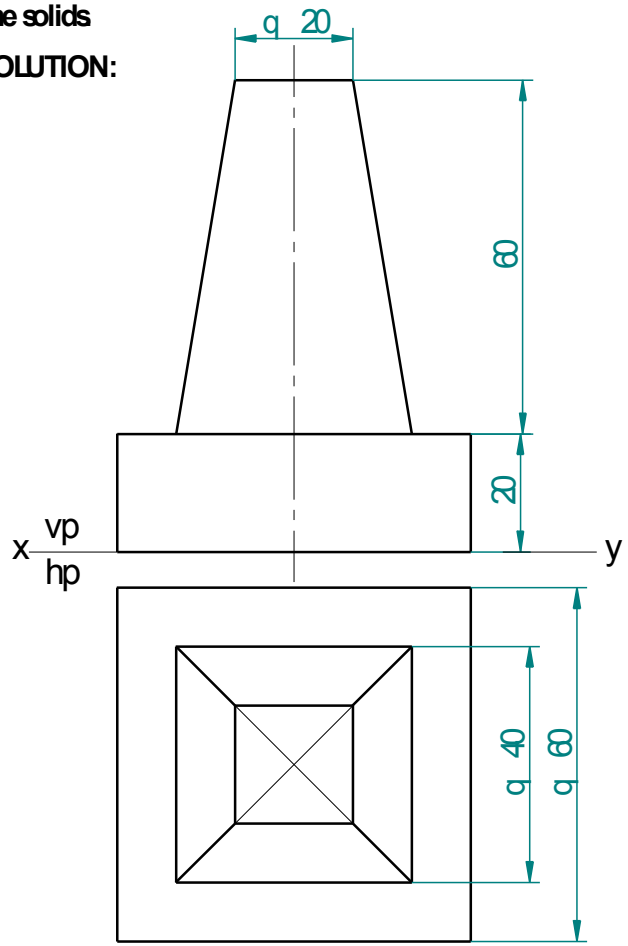
SOLUTION:

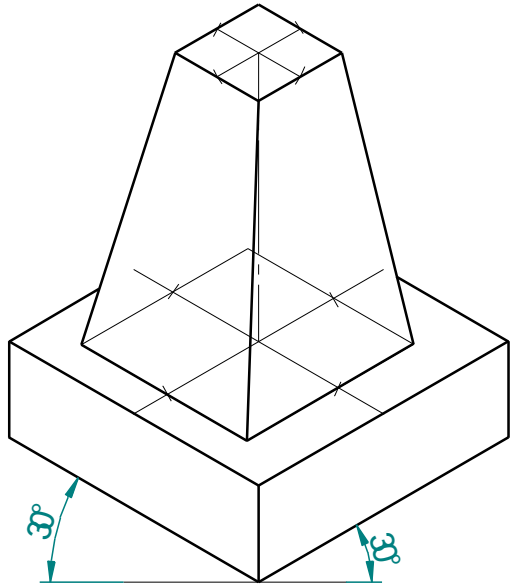




6. **The frustum of a square pyramid of sides 40 mm and height 60 mm rest on the centre of the top of a square block of side 60 mm and height 20 mm. The base edges of the pyramid are parallel to the top edges of the square block. Draw the isometric projection of the combination of the solids**

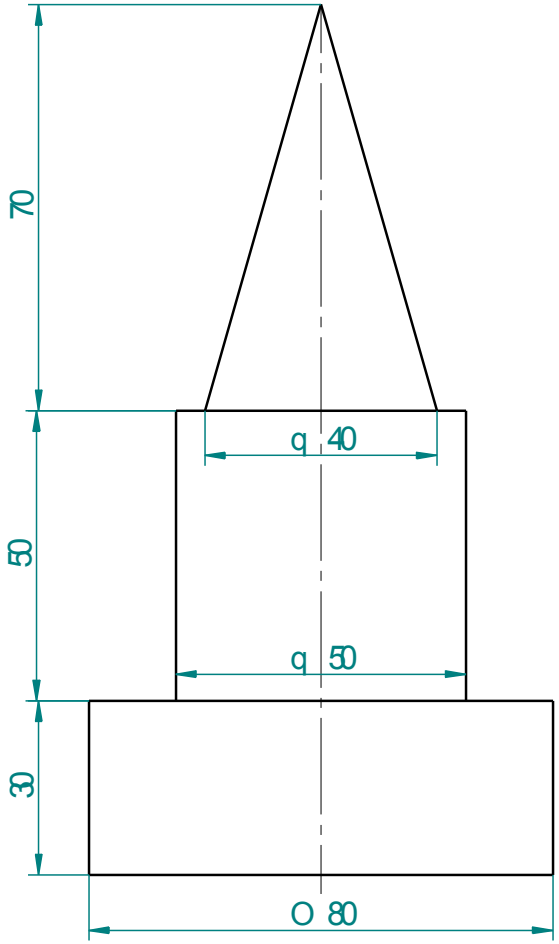
SOLUTION:

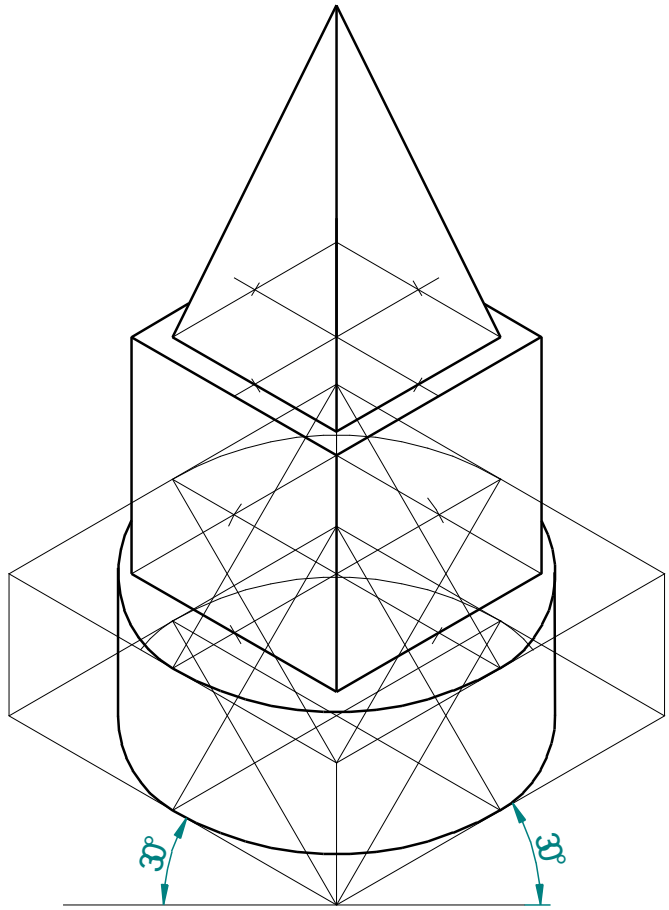




7. A square pyramid of base side 40 mm and height 70 mm rests symmetrically on a cube of edge 50 mm, which itself is placed on a cylinder of diameter 80 mm and thickness 30 mm. Draw the isometric projection of the solids if the axes of the three solids are in common line.

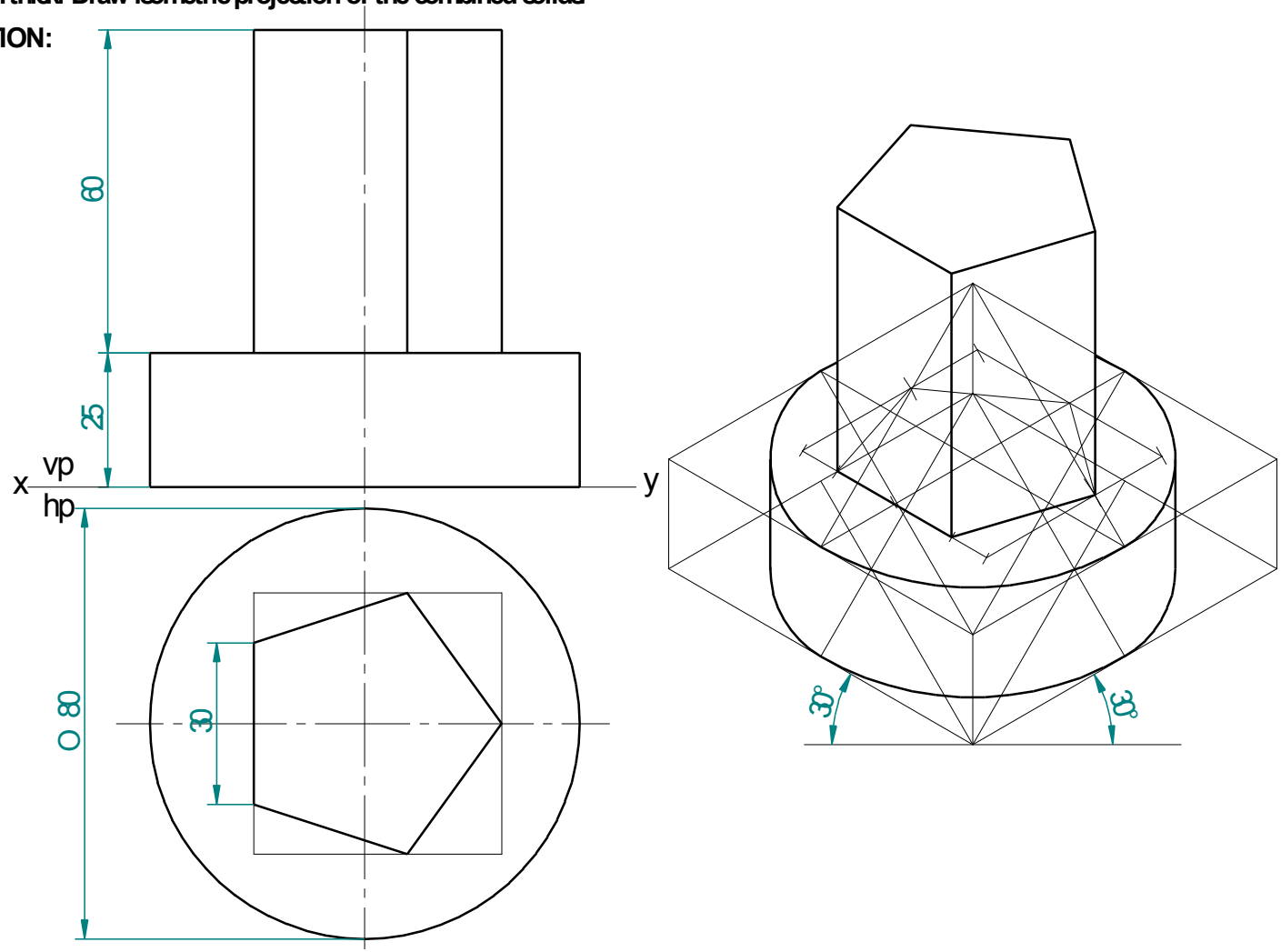
SOLUTION:





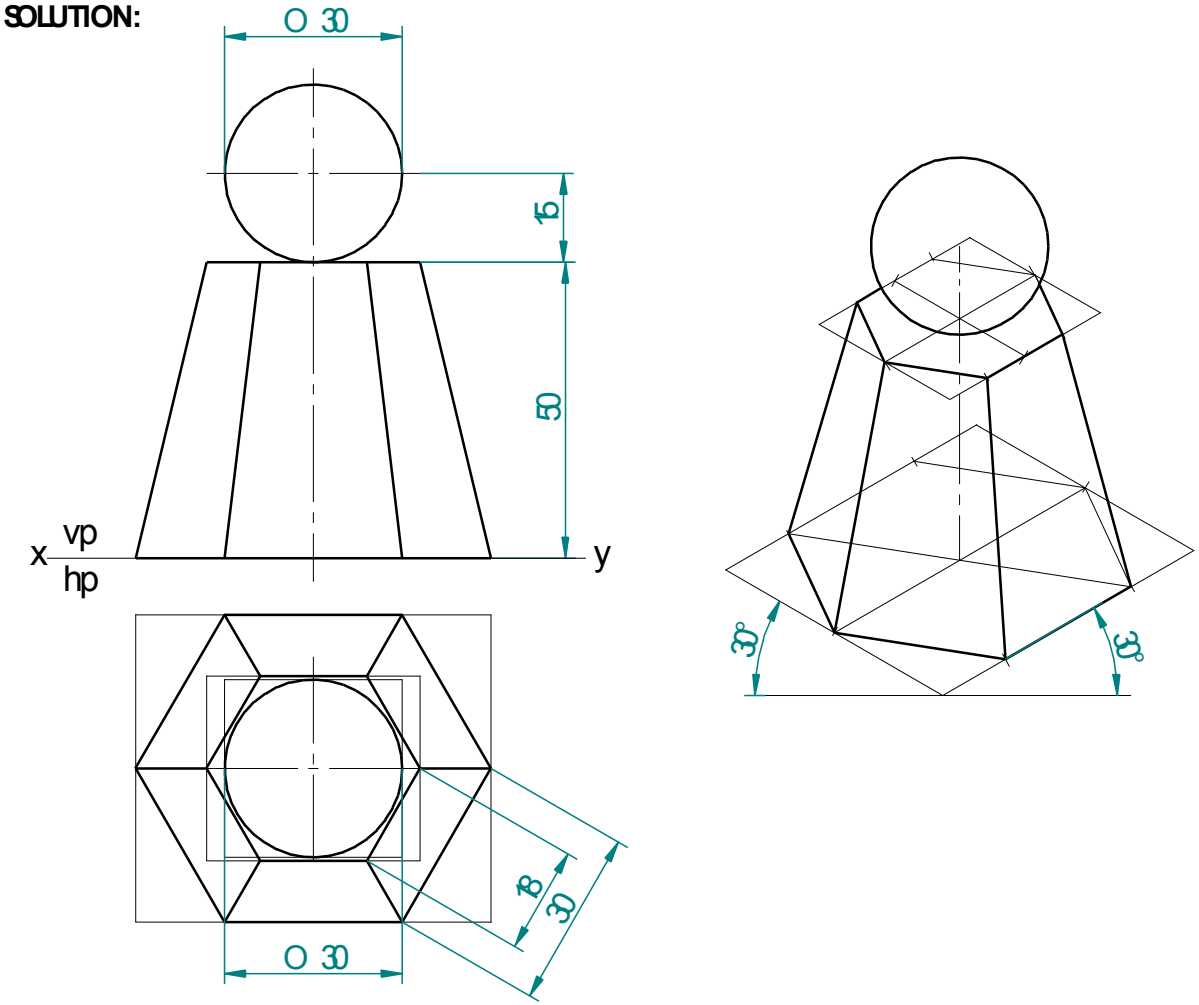
8. A regular pentagonal prism of base edge 30 mm and axis 60 mm is mounted centrally over a cylindrical block of 80 mm diameter and 25 mm thick. Draw isometric projection of the combined solids.

SOLUTION:



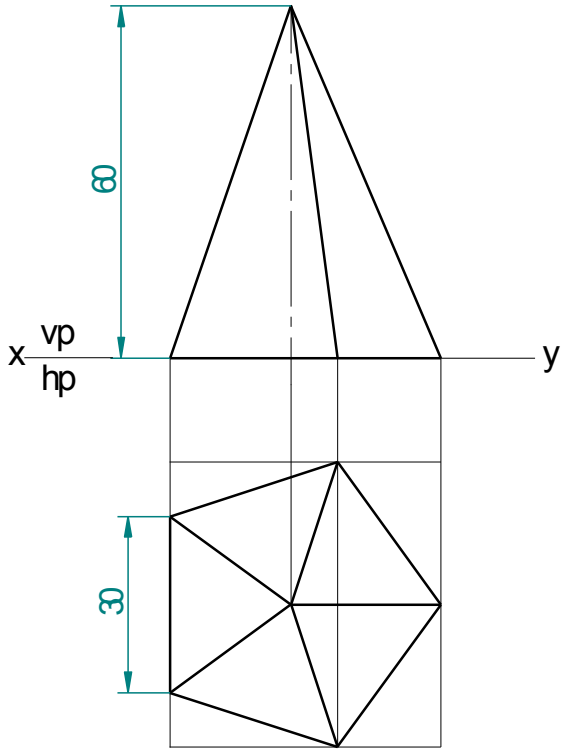
9. **A sphere of diameter 30 mm rests on the frustum of a hexagonal pyramid base 30 mm, top face 18 mm side and height 50 mm, such that their axes coincide. Draw the Isometric projection of the combined solids**

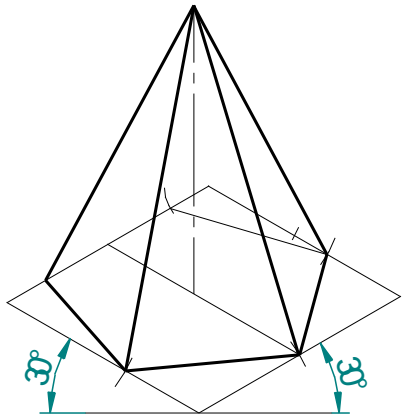
SOLUTION:



10. A pentagonal pyramid of base side 30 mm and axis length 60 mm is resting on HP on its base with a side of base perpendicular to VP. Draw its projections

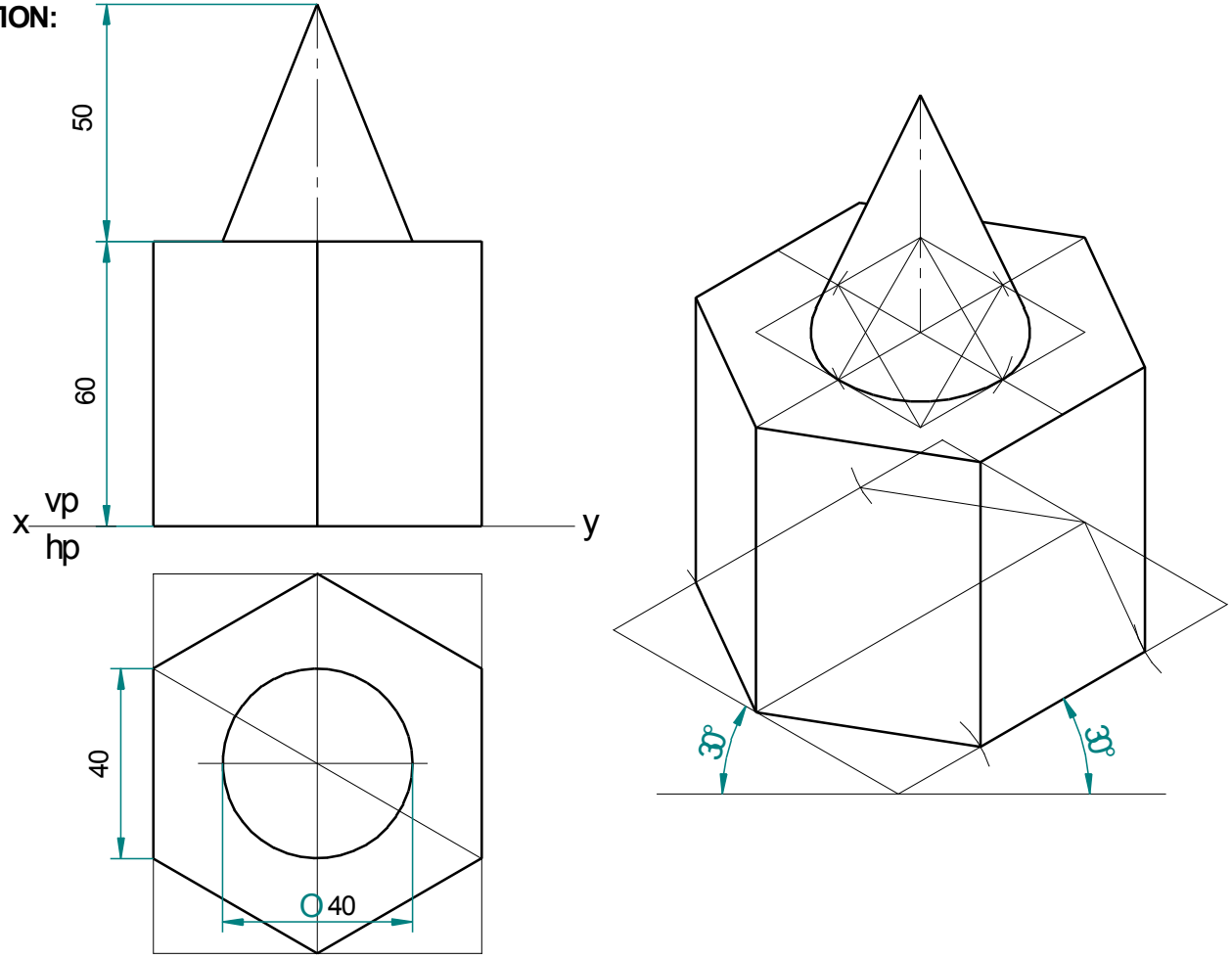
SOLUTION:





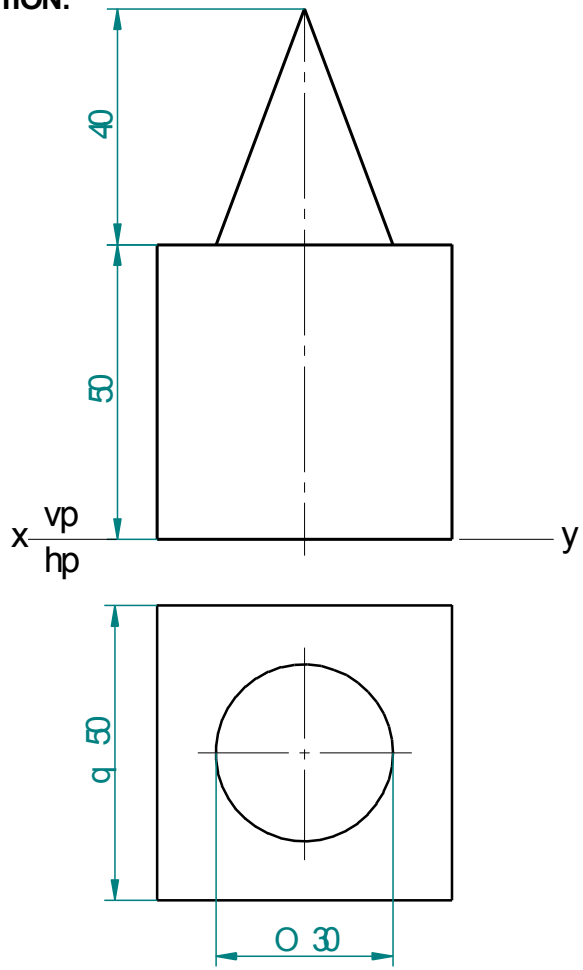
11. Draw isometric projection of a hexagonal prism of side of base 40 mm and height 60 mm with a right circular cone of base 40 mm as diameter and altitude 50 mm, resting on its top such that the axes of both the solids are collinear.

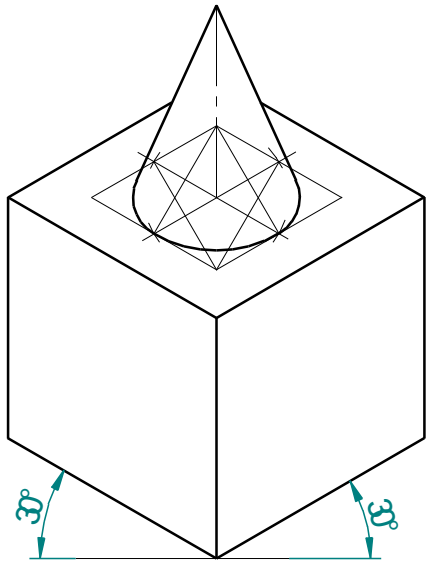
SOLUTION:



12. **A cone of base diameter 30 mm and height 40 mm rests centrally over a cube of side 50 mm. Draw the isometric projection of the combination of solids**

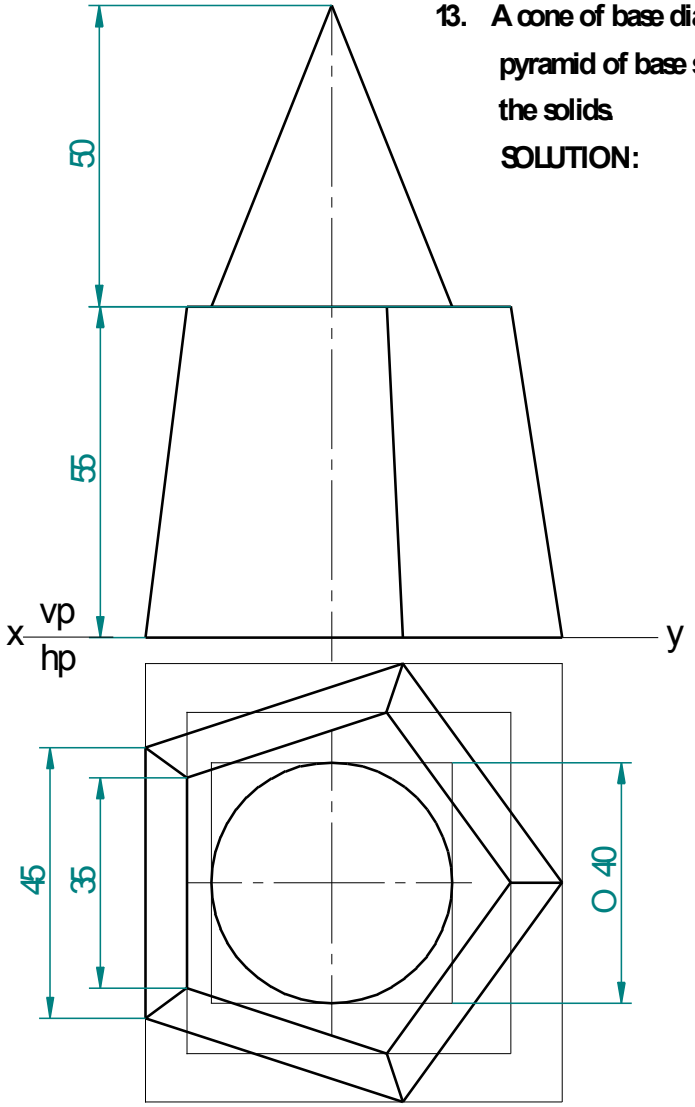
SOLUTION:

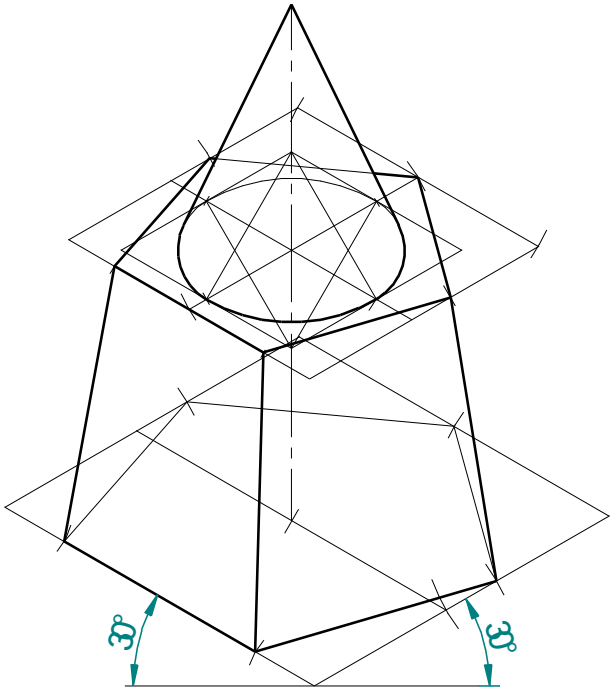




13. A cone of base diameter 40 mm and height 50 mm rests centrally over a frustum of a pentagonal pyramid of base side 45 mm and top side 35 mm and height 55 mm. Draw Isometric projections of the solids.

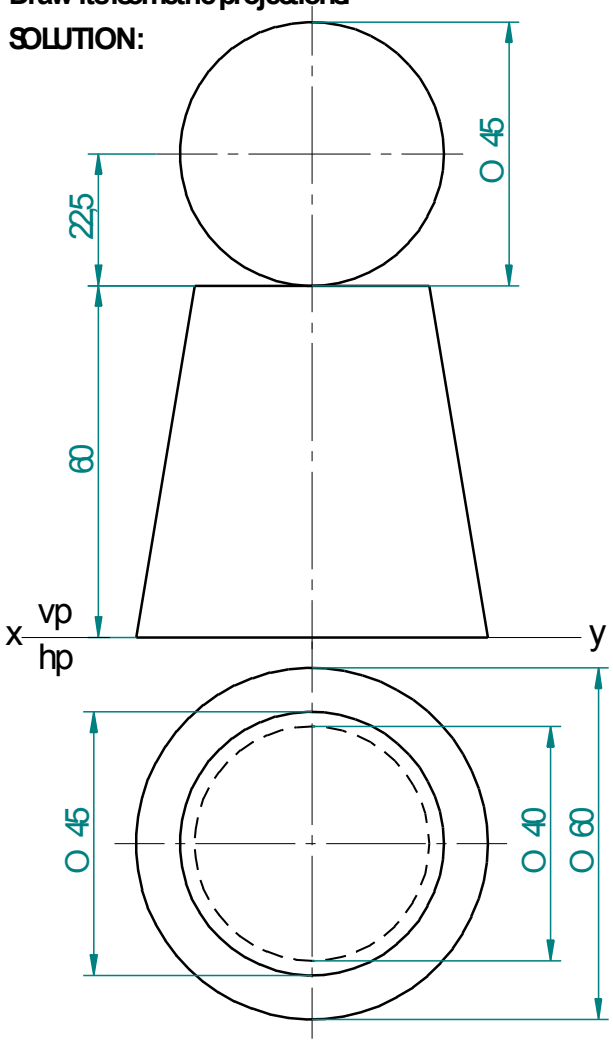
SOLUTION:

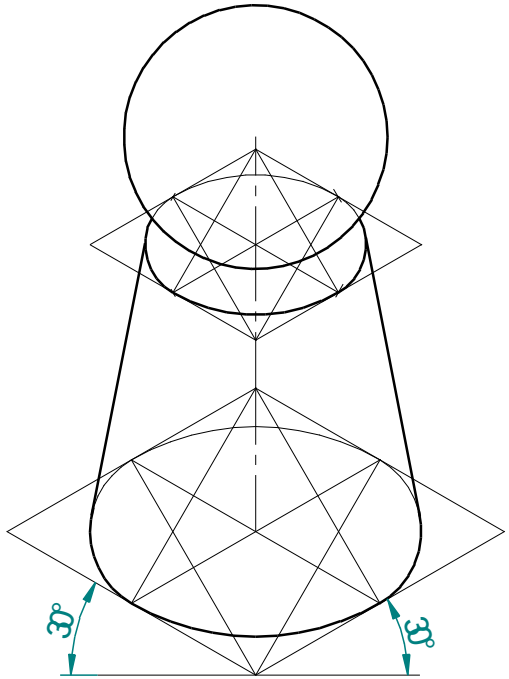




14. A sphere of diameter 45 mm rests centrally over a frustum of cone of base diameter 60 mm, top diameter 40 mm and height 60 mm. Draw its isometric projections.

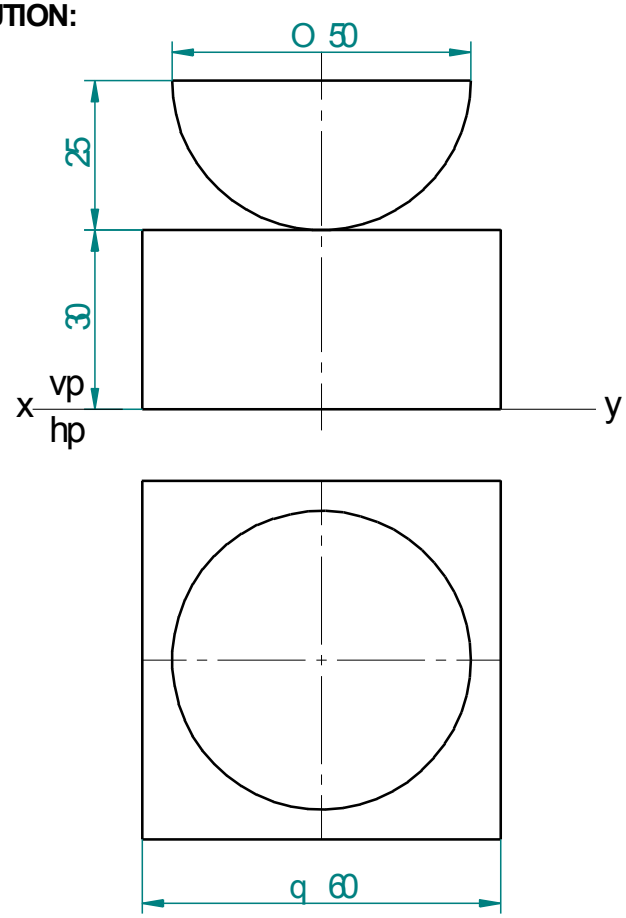
SOLUTION:

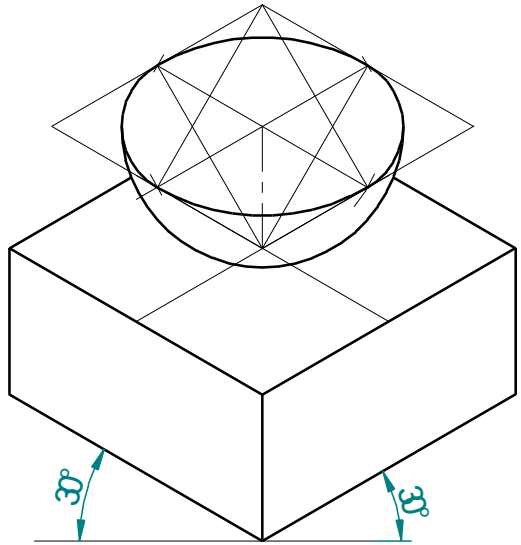




15. A hemisphere of diamter 50 mm is centrally resting on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of hemisphere is touching the top face of the prism. Draw the isometric projections

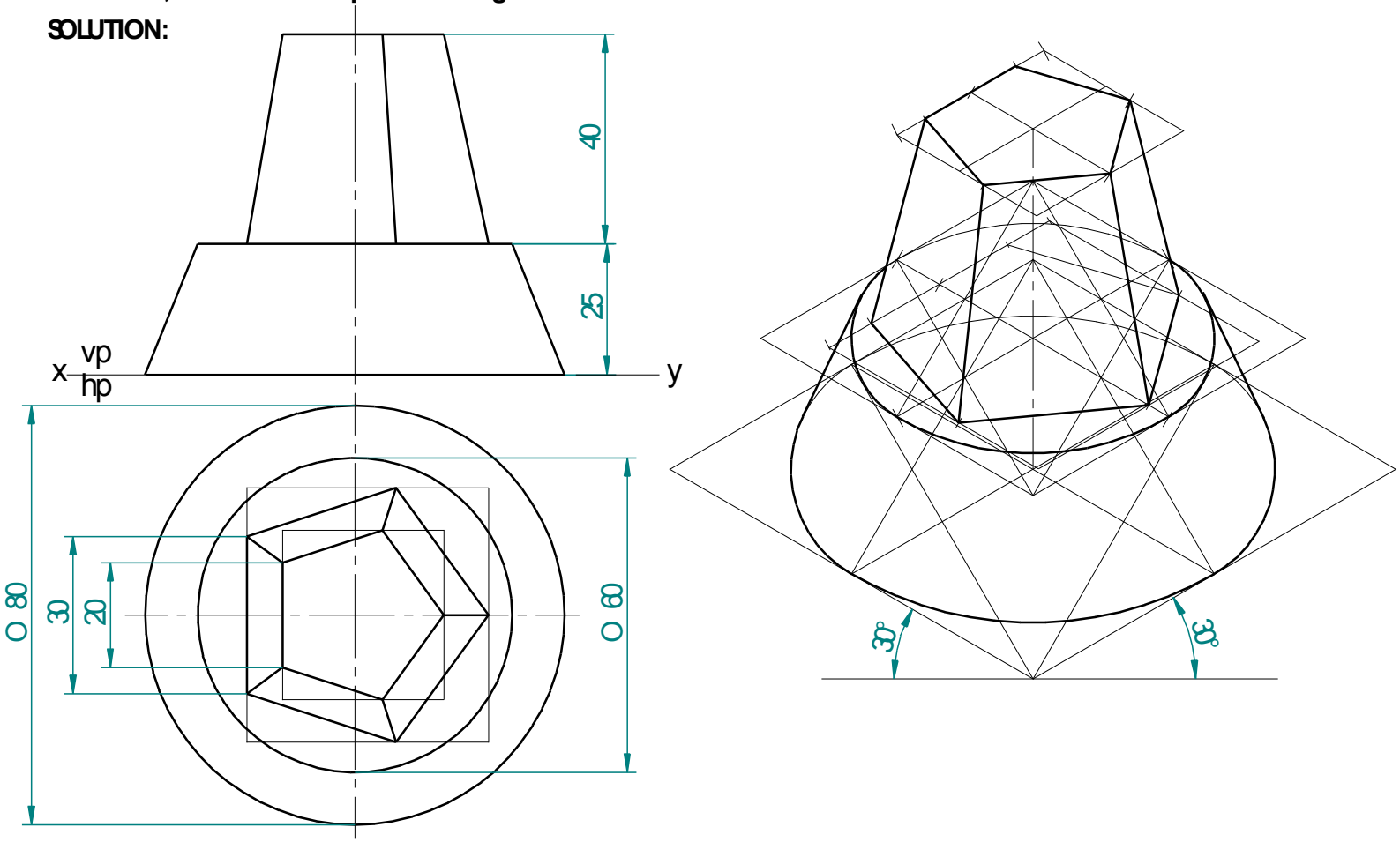
SOLUTION:





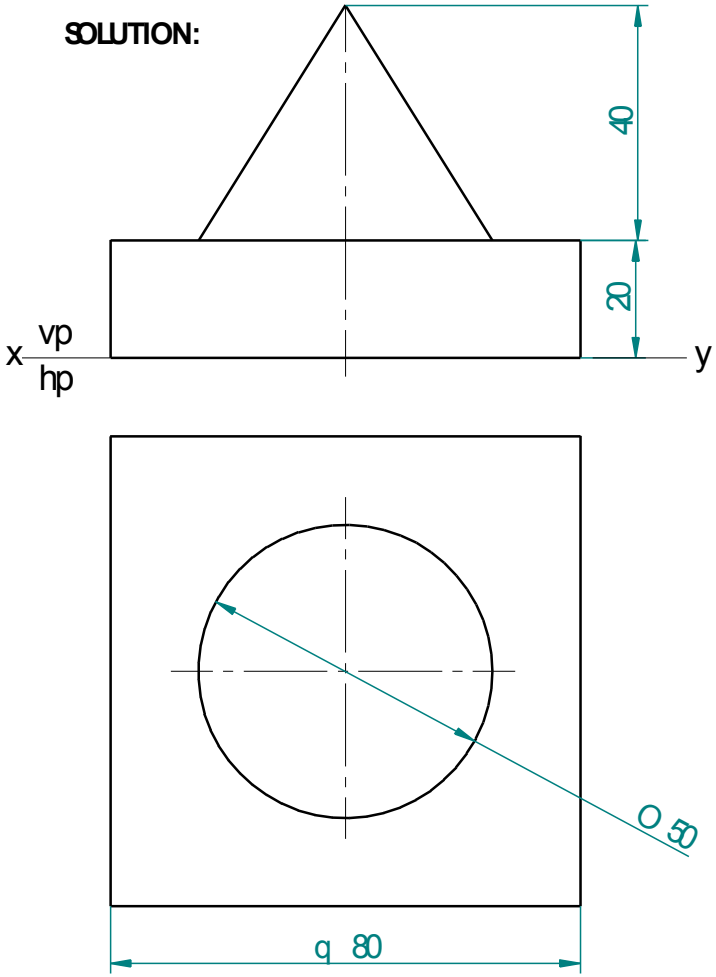
16. Draw the isometric projection of the combination of solids formed by a frustum of cone and co-axial frustum of pentagonal pyramid. The lower frustum of cone is of 80 mm base diameter, 60 mm top diameter and height 25 mm, the upper frustum of pyramid is of 30 mm side of base, 20 mm side of top face and height 40 mm.

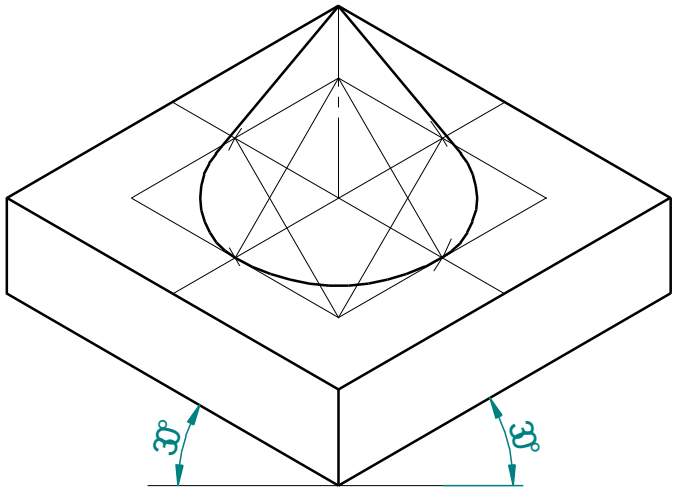
SOLUTION:



17. A cone of base diameter 50 mm and height 40 mm is placed centrally on the top face of a square slab - 80 mm and height 20 mm. Draw the isometric projection of the combination.

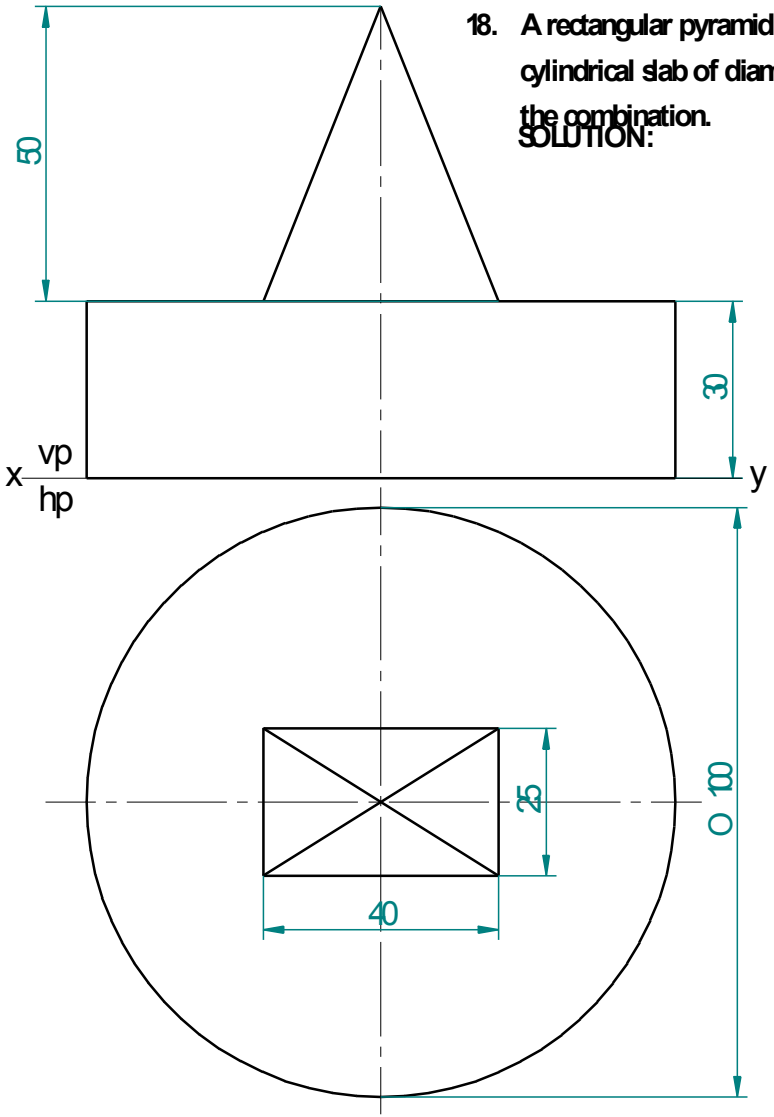
SOLUTION:

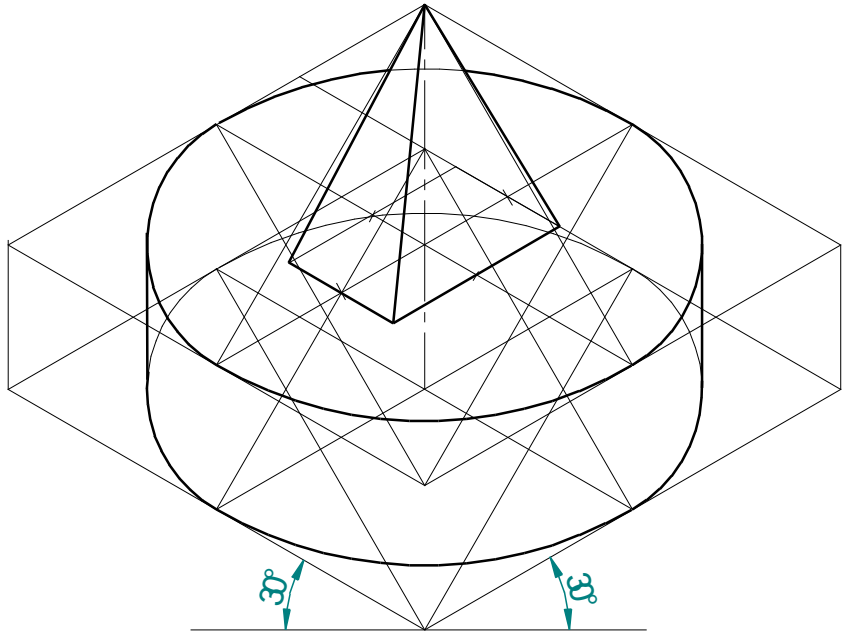




18. A rectangular pyramid of base - 40 mm X 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness - 30 mm. Draw the isometric projection of the combination.

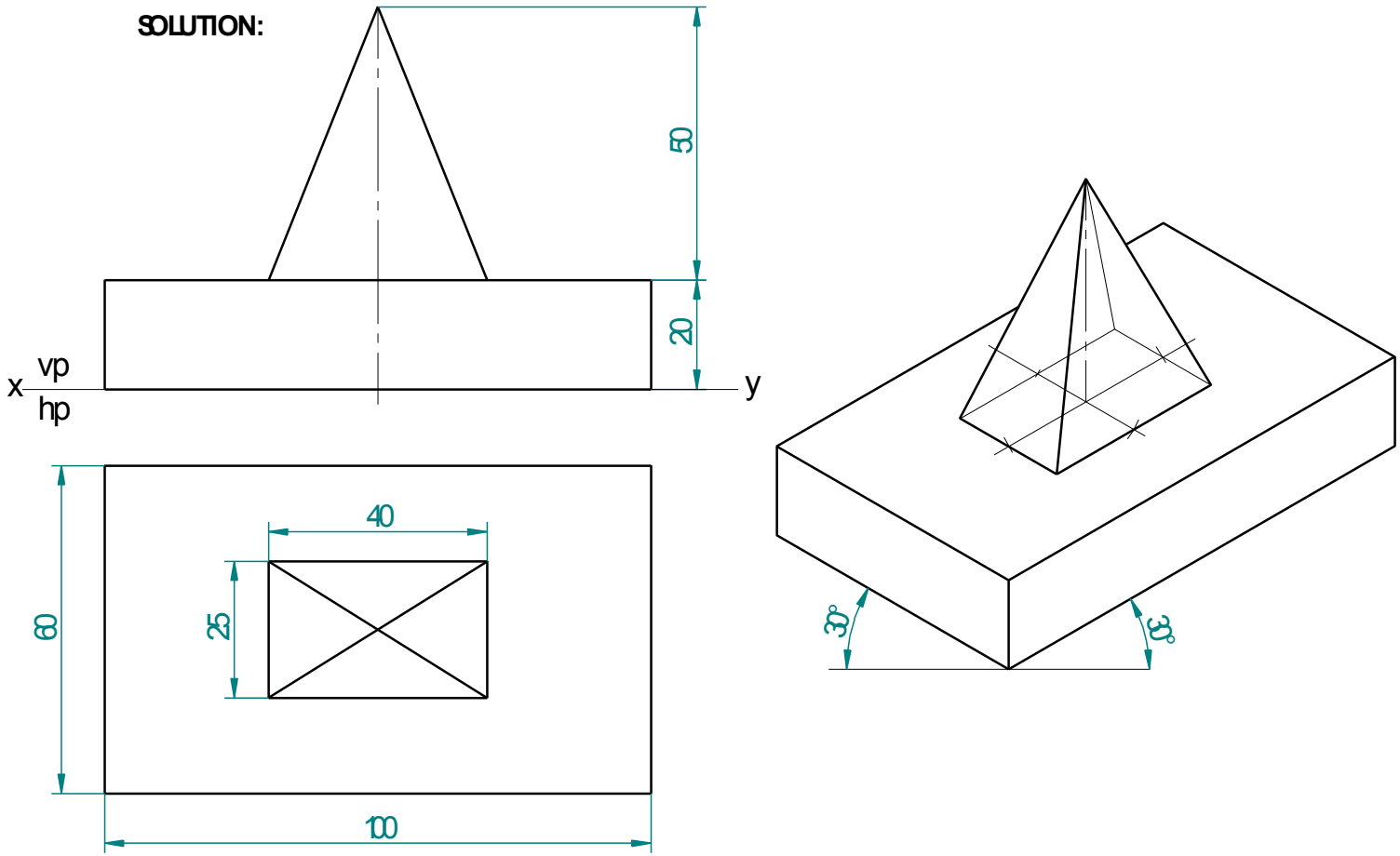
SOLUTION:

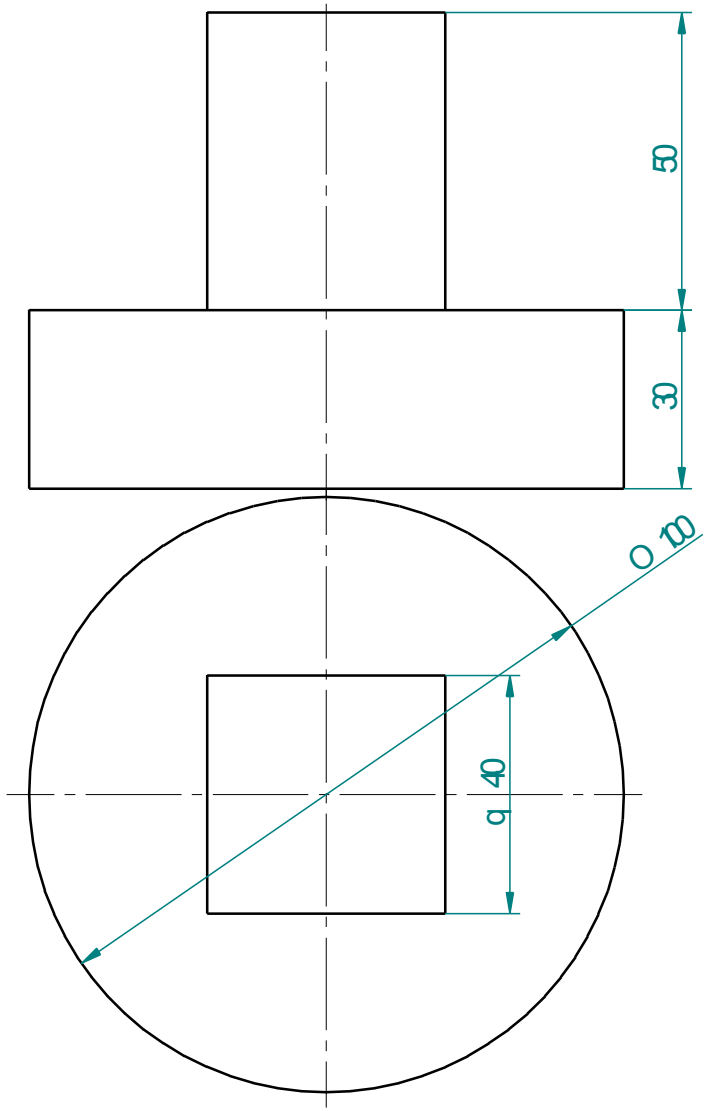




19. A rectangular pyramid of base - 40 mm X 25 mm and height 50 mm is placed centrally on a rectangular slab sides 100 mm X 60 mm and thickness - 20 mm. Draw the isometric projection of the combination.

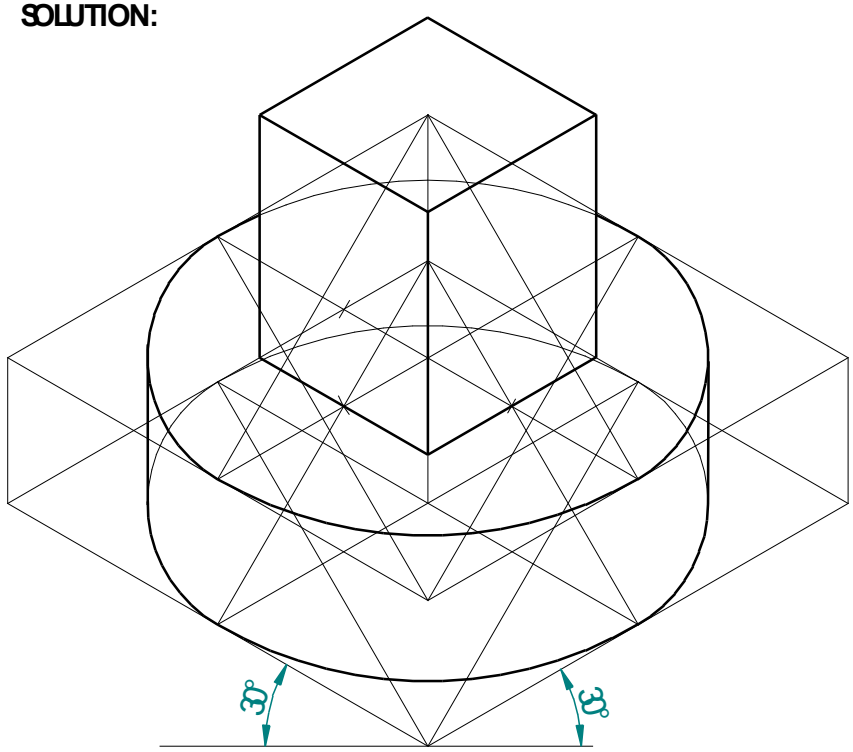
SOLUTION:





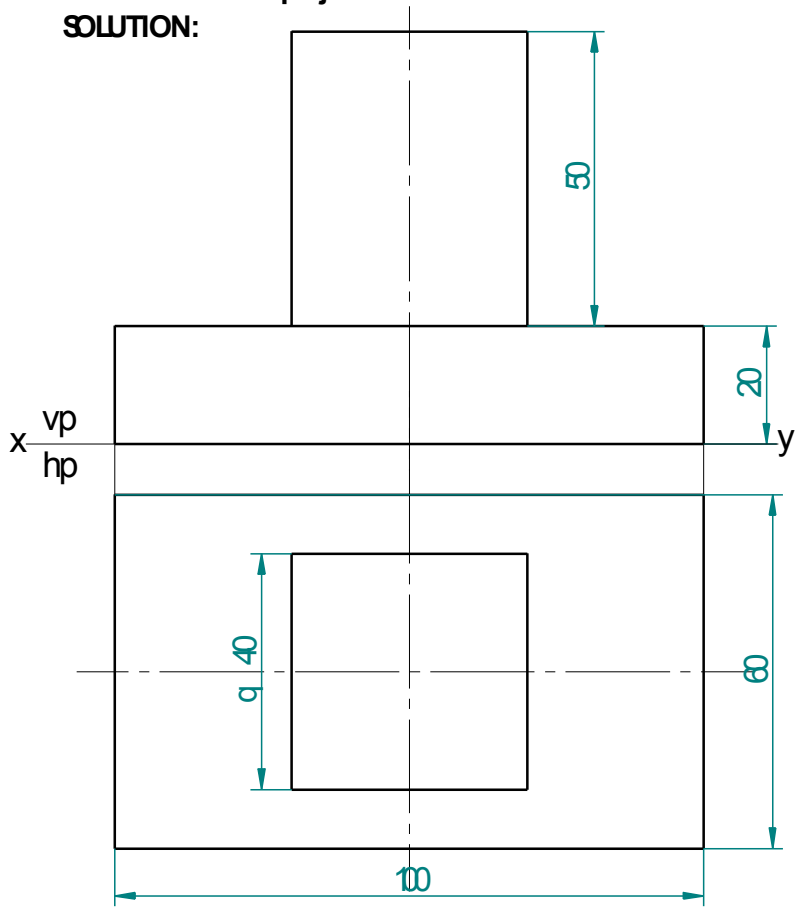
20. A square prism base side - 40 mm, height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination.

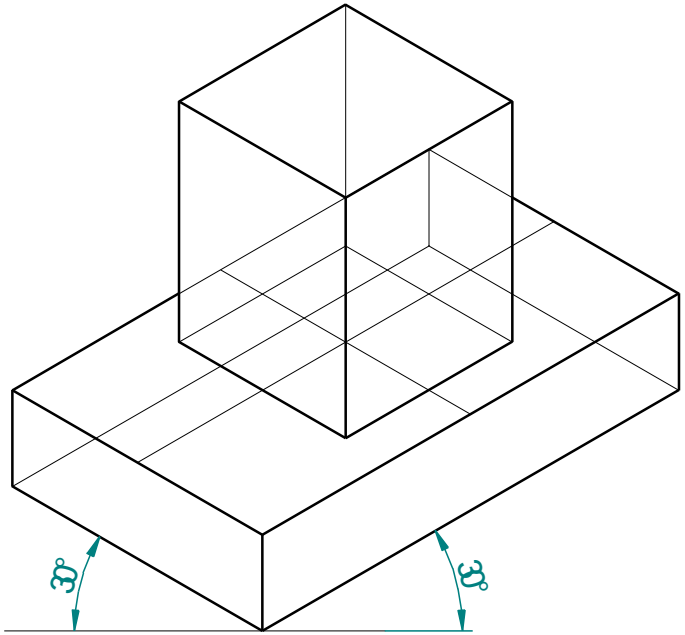
SOLUTION:



21. A square prism base side - 40 mm, height 50 mm is placed centrally on a rectangular slab sides 100 mm X 60 mm and thickness 20 mm. Draw the isometric projection of the combination.

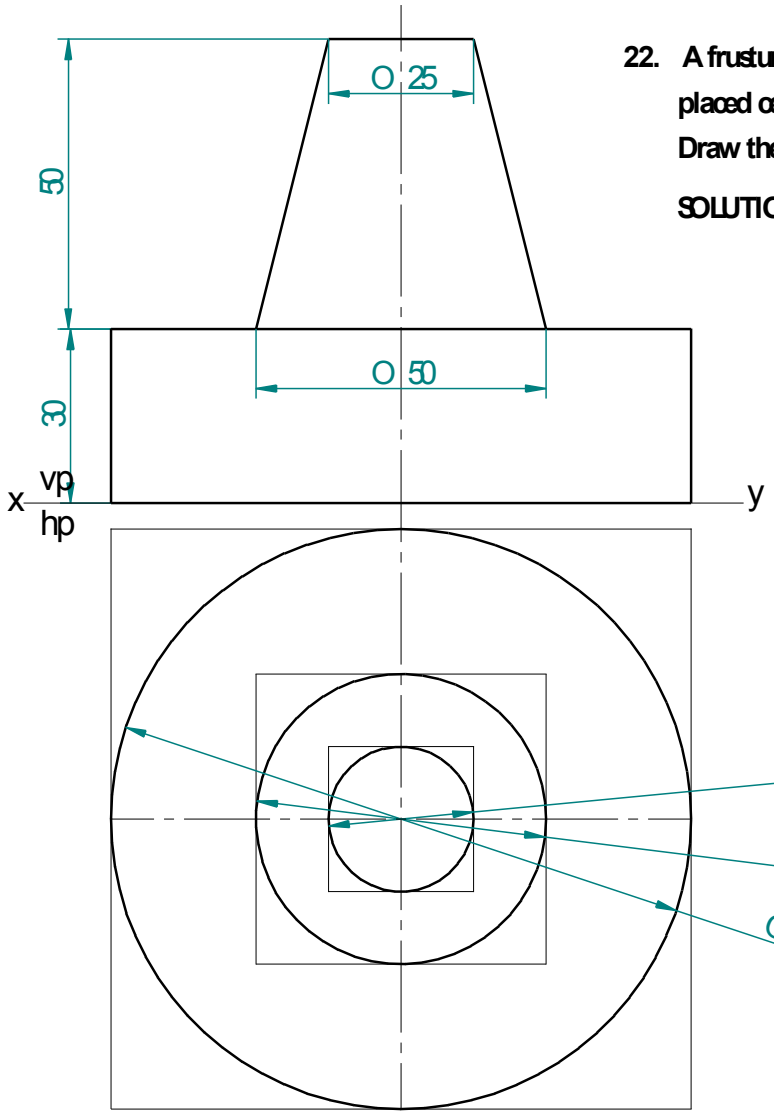
SOLUTION:

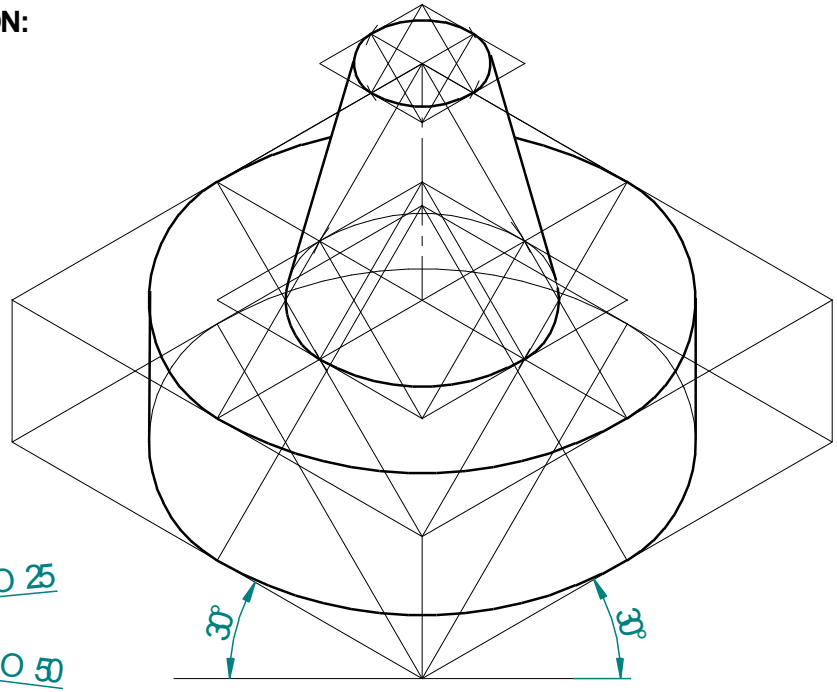




22. A frustum of cone base diamter 50 mm, top diamter 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination.

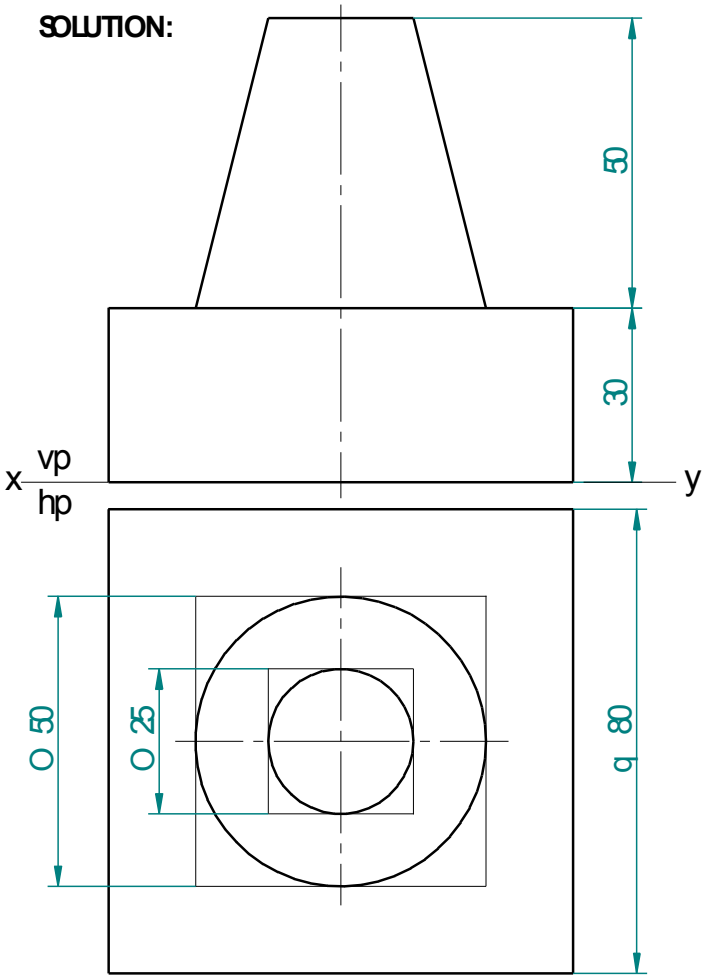
SOLUTION:

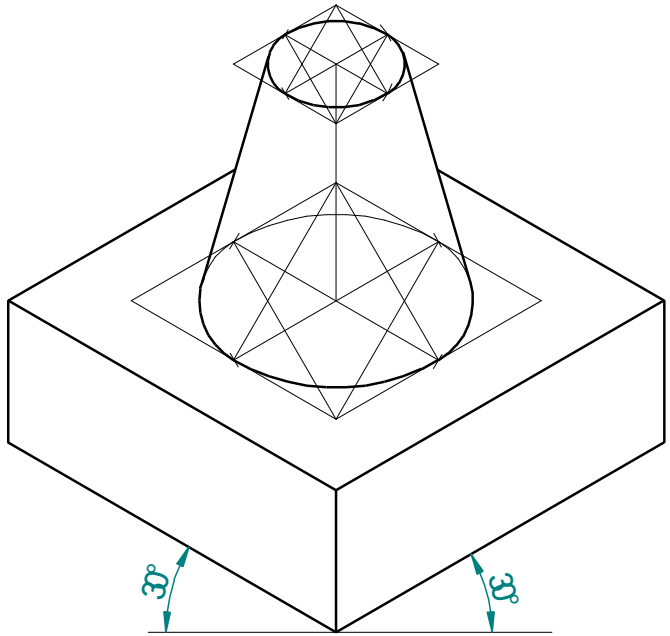




23. A frustum of cone base diameter 50 mm, top diameter 25 mm and height 50 mm is placed centrally on a square slab side 80 mm and thickness - 30 mm. Draw the isometric projection of the combination.

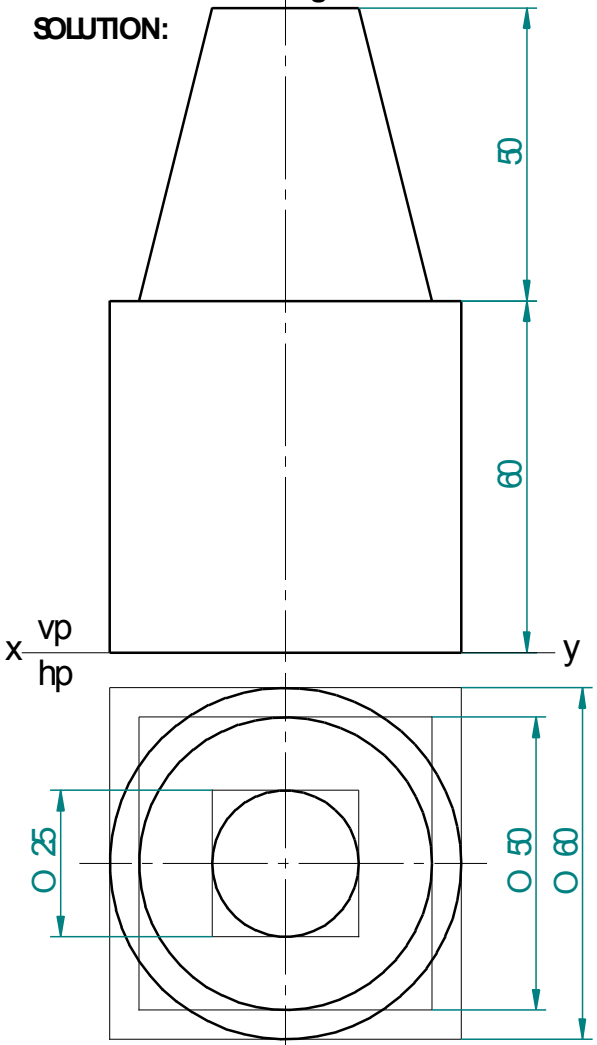
SOLUTION:

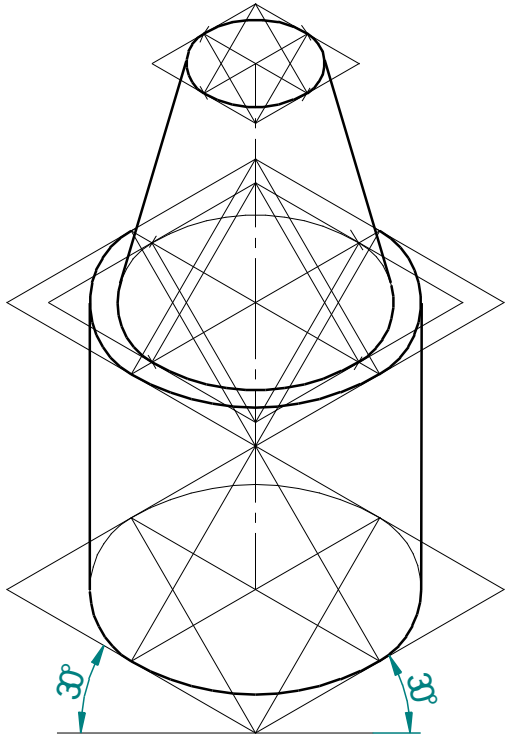




24. A frustum of cone base diameter 50 mm, top diameter 25 mm and height 50 mm is placed centrally on the top face of a cylinder diameter 60 mm and height 60 mm. Draw the isometric projection of the combination.

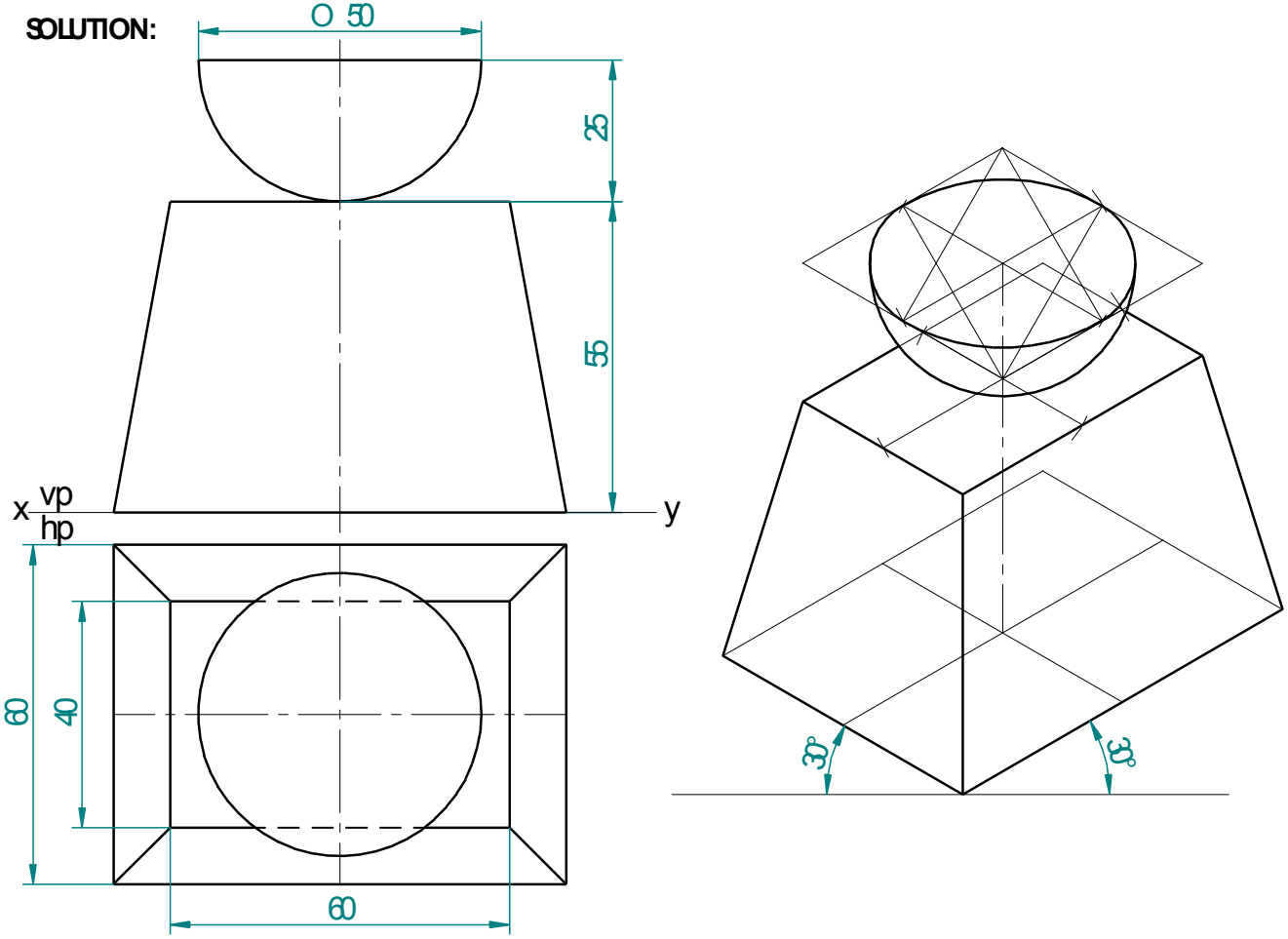
SOLUTION:





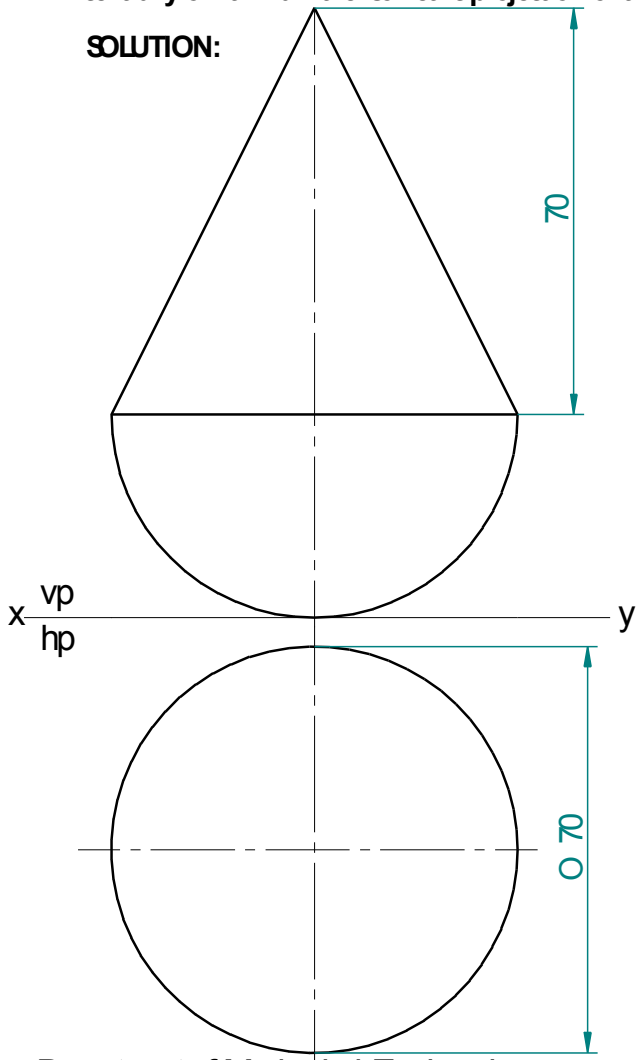
25. A hemisphere diameter 50 mm is resting on its curved surface centrally on the top face of frustum of a rectangular pyramid base - 80 mm X 60 mm and top - 60 mm X 40 mm, height 55 mm. Draw the isometric projection of the combination.

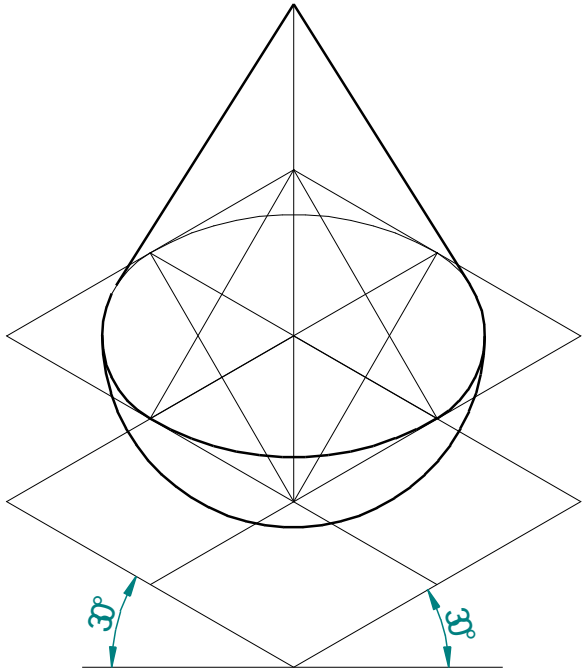
SOLUTION:



26. A hemisphere diameter 70 mm is placed on the ground on its curved surface, A cone base diameter 70 mm and height 70 mm is placed centrally on it. Draw the isometric projection of the combination.

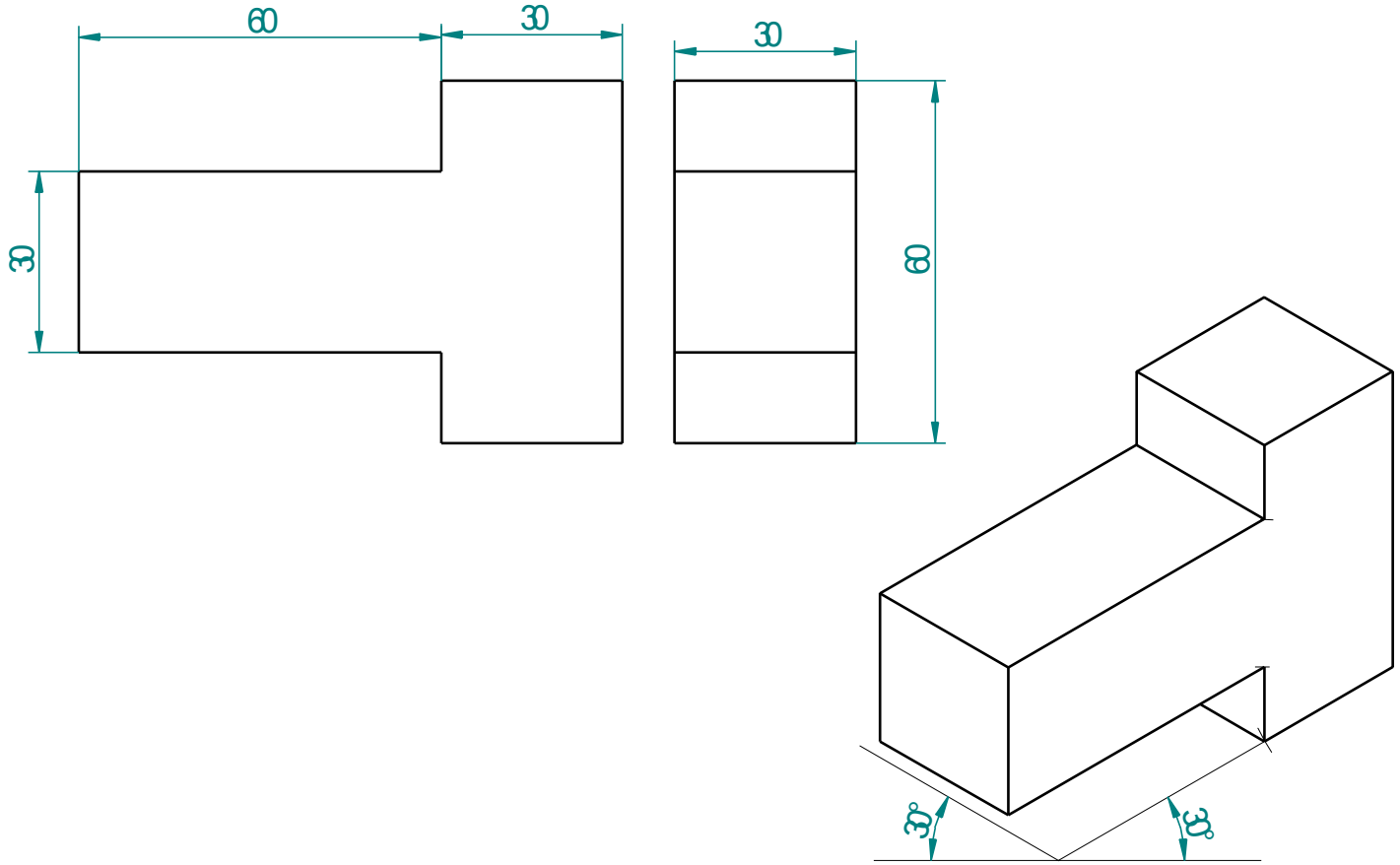
SOLUTION:





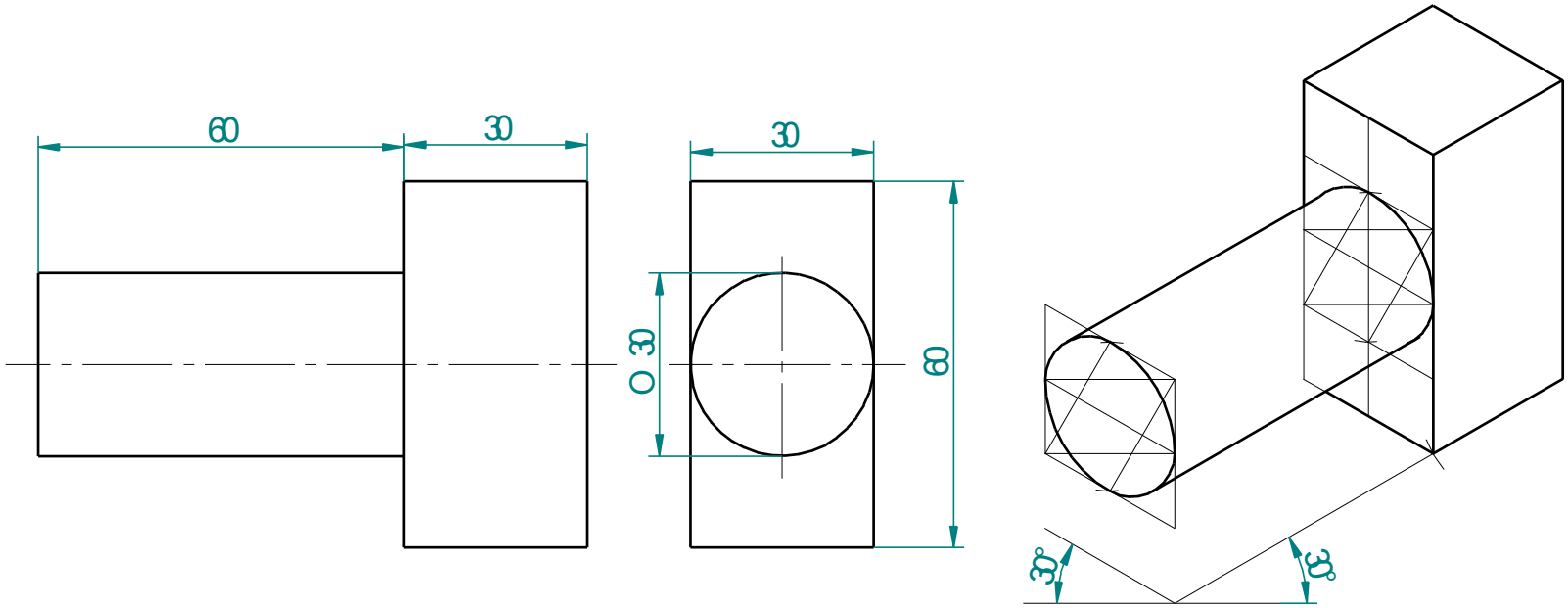
27. Following figure shows the front and side views of solid. Draw the isometric projection of the solid.

SOLUTION:



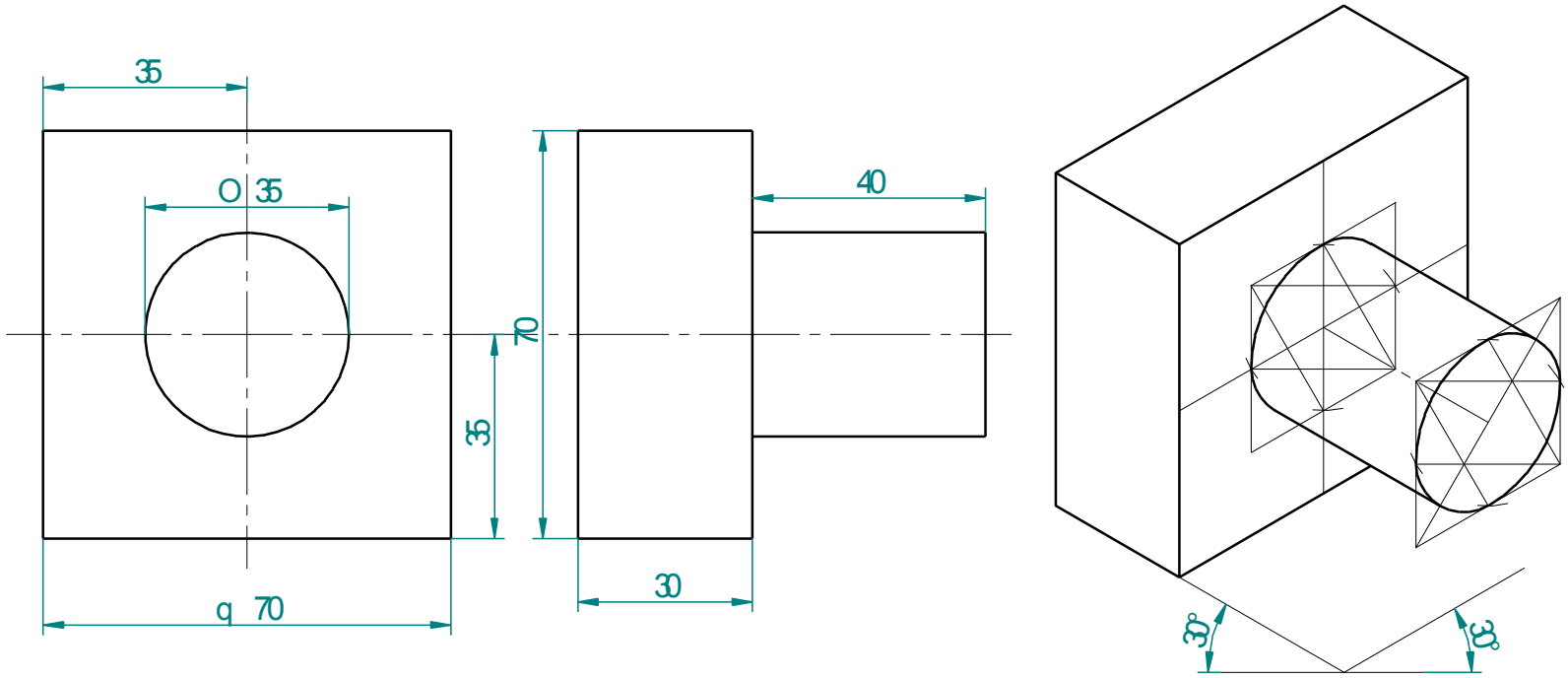
28. Following figure shows the front and side views of solid. Draw the isometric projection of the solid.

SOLUTION:



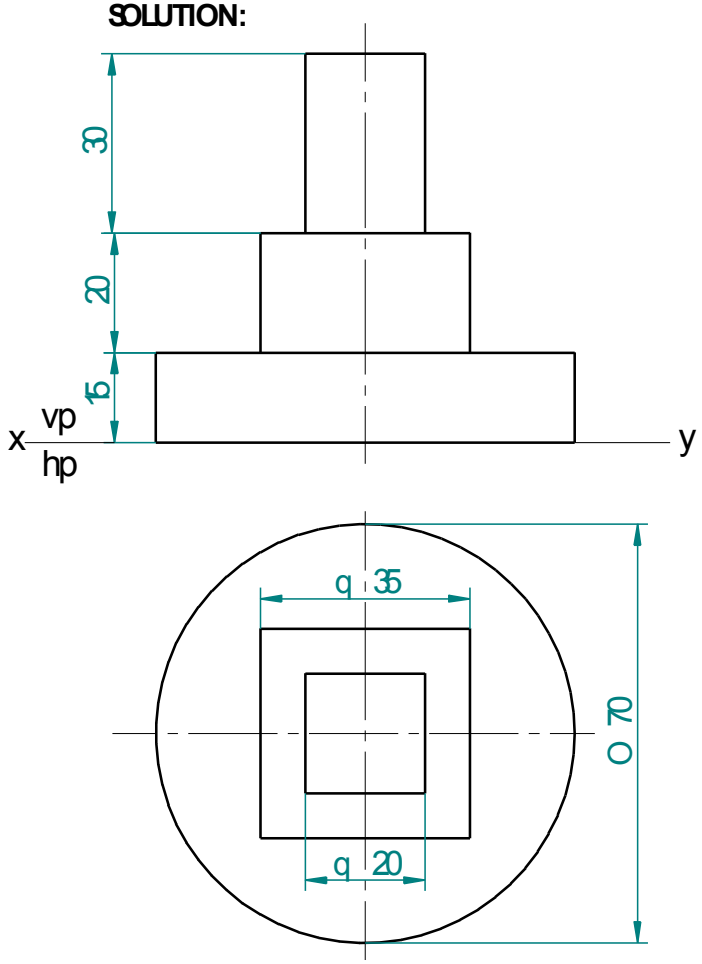
29. Following figure shows the front and side views of solid. Draw the Isometric projection of the solid.

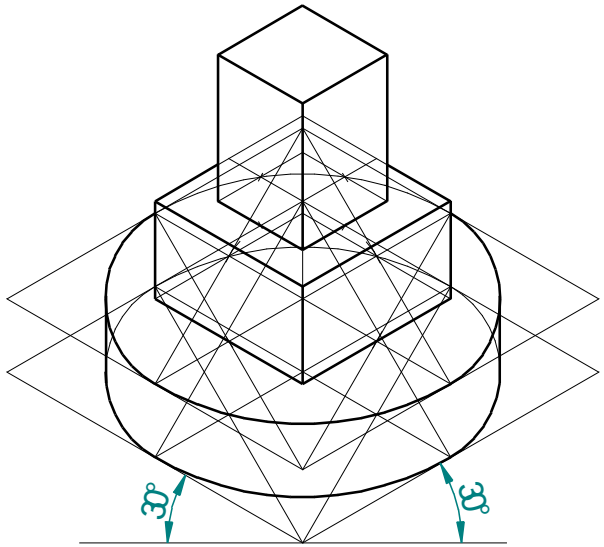
SOLUTION:



30. Following figure shows the front and top views of solid. Draw the Isometric projection of the solid.

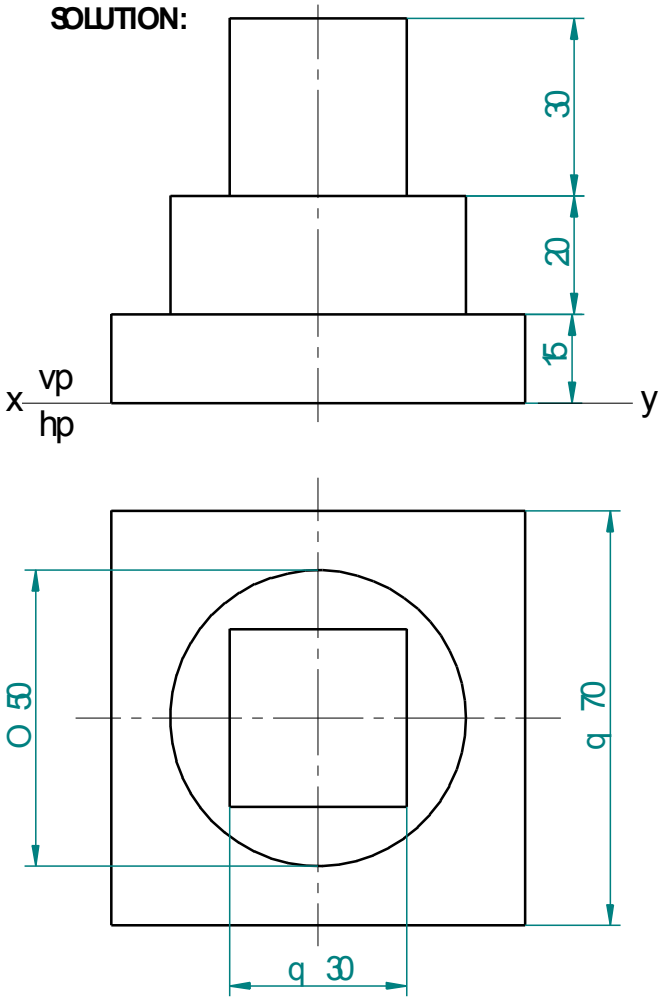
SOLUTION:

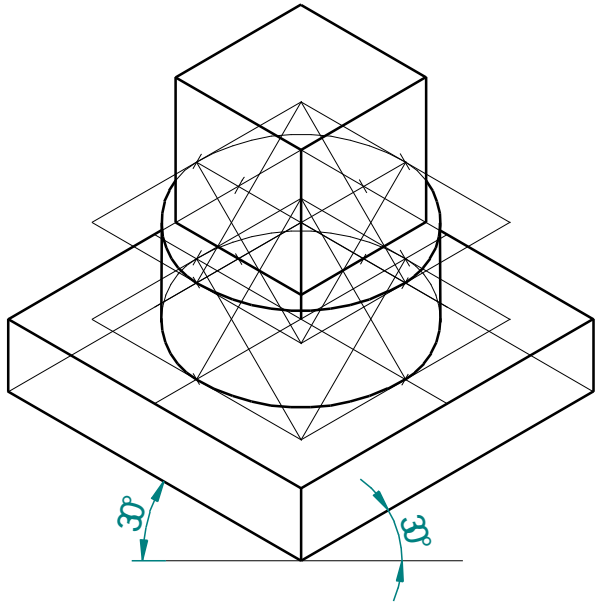




31. Following figure shows the front and top views of solid. Draw the Isometric projection of the solid.

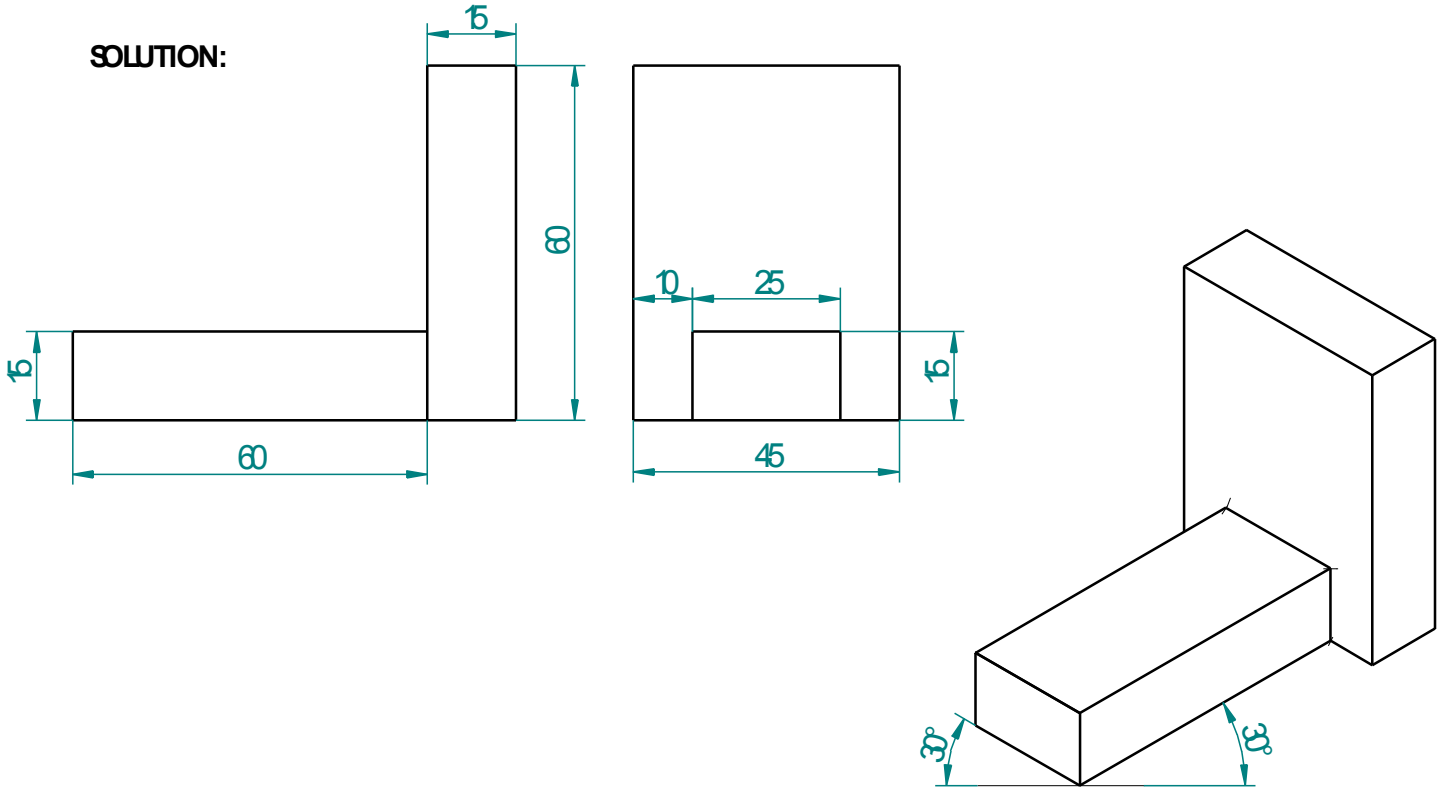
SOLUTION:





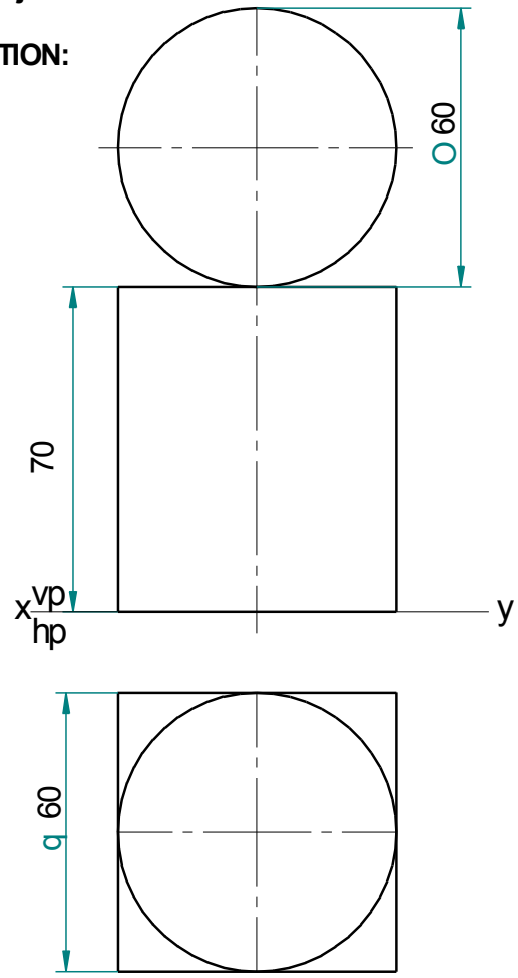
32. Following figure shows the front and side views of solid. Draw the isometric projection of the solid.

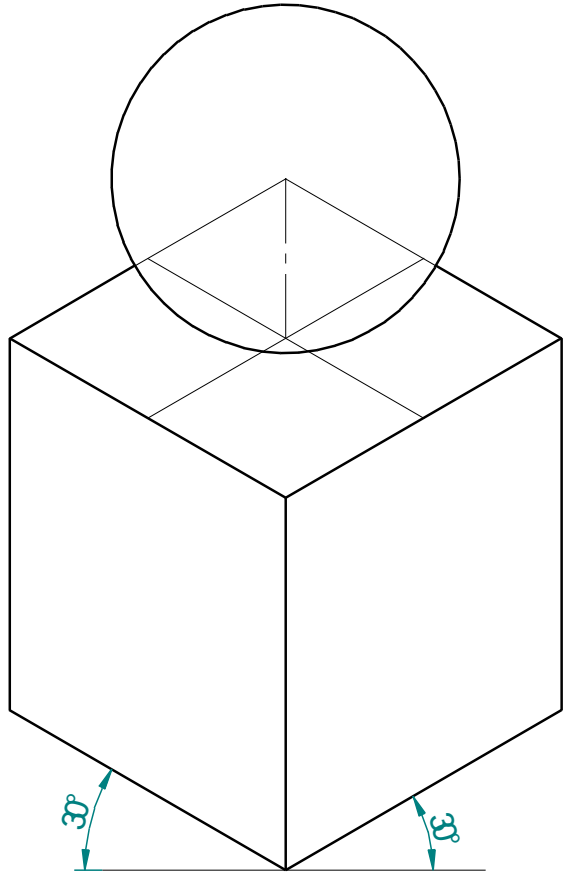
SOLUTION:



33. **A sphere diameter 60 mm is placed centrally on the top face of a square prism side - 60 mm and height 70 mm. Draw the Isometric projection of the combination.**

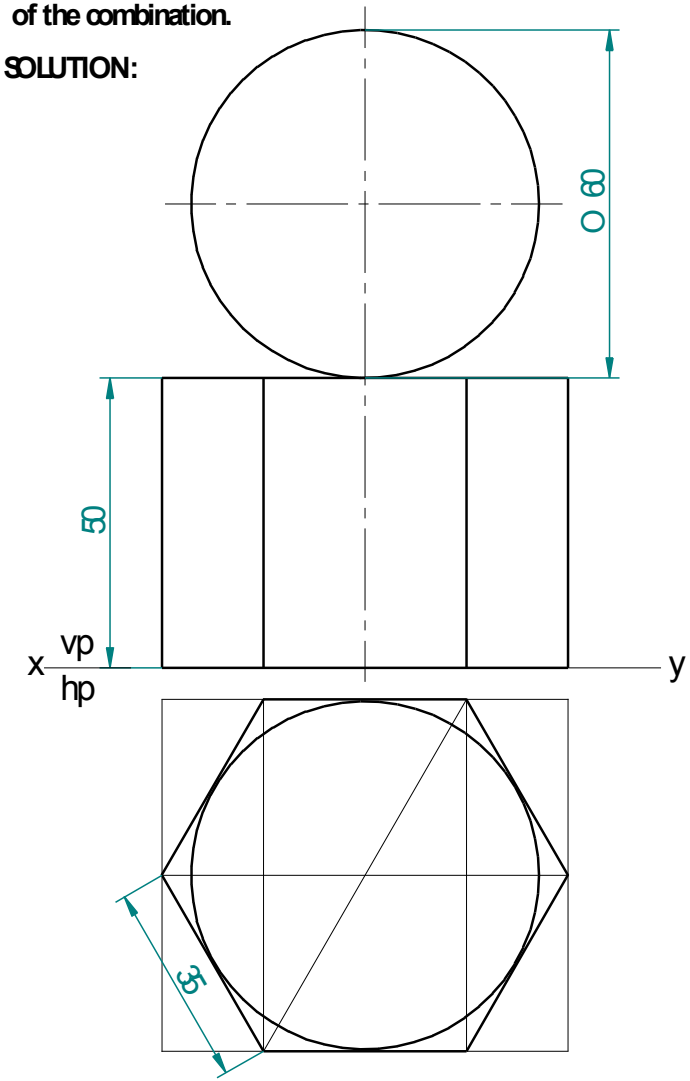
SOLUTION:

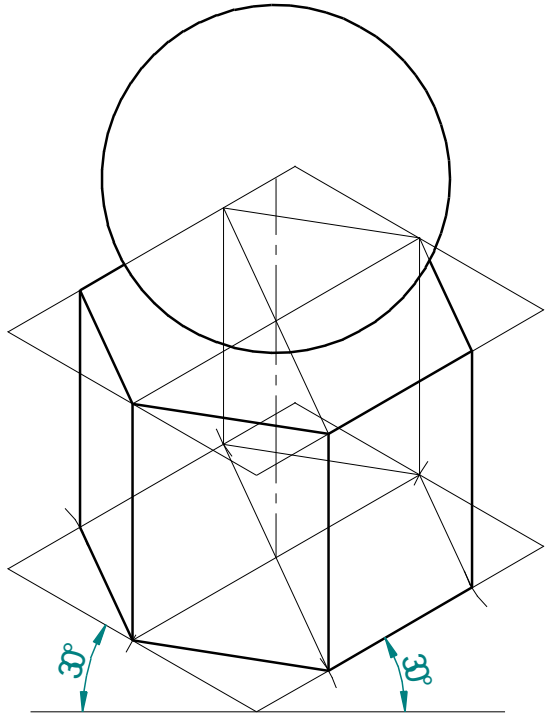




34. A sphere of 60 mm is placed centrally on the top face of a hexagonal prism side - 35 mm and height 50 mm. Draw the isometric projection of the combination.

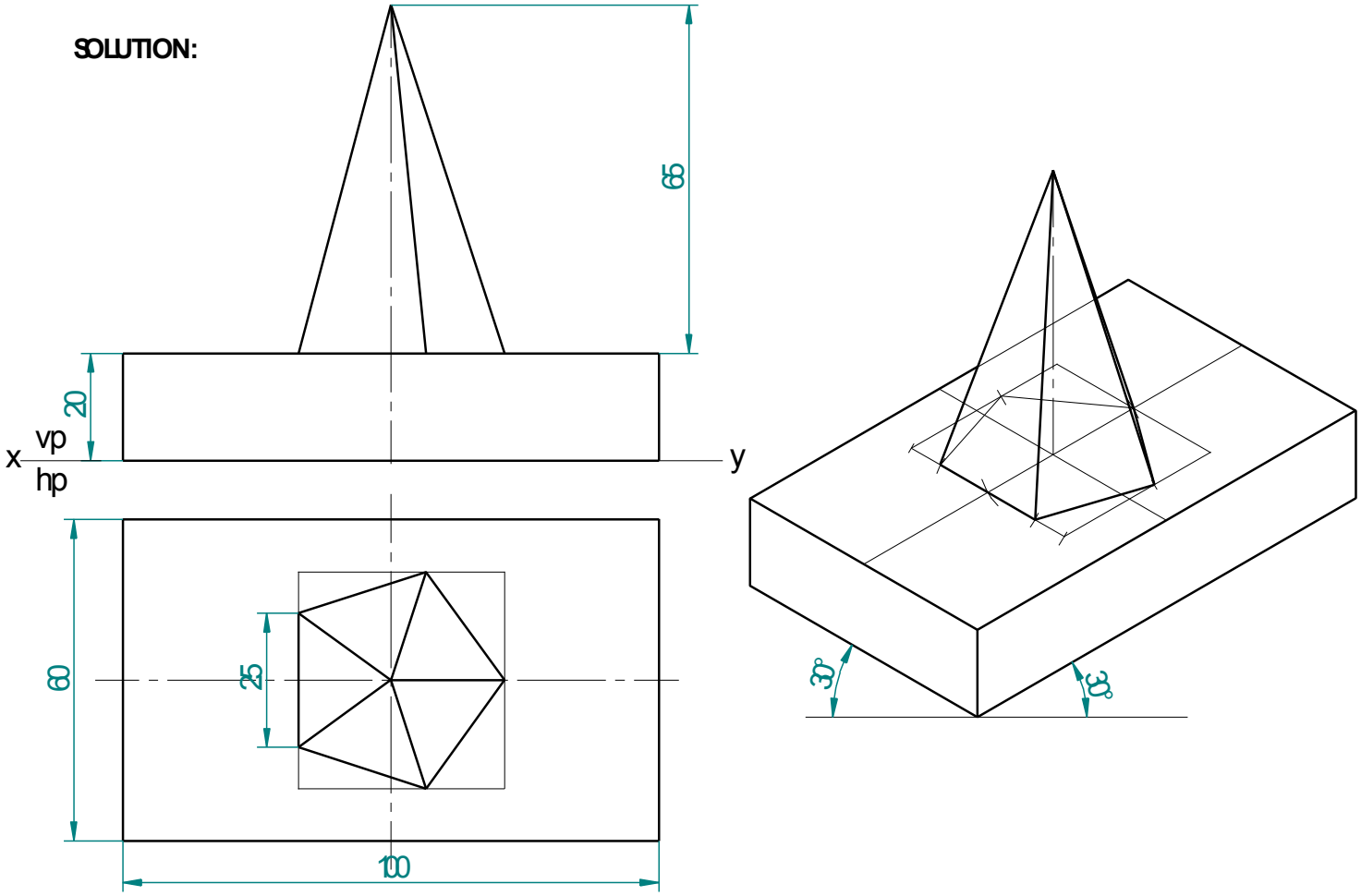
SOLUTION:





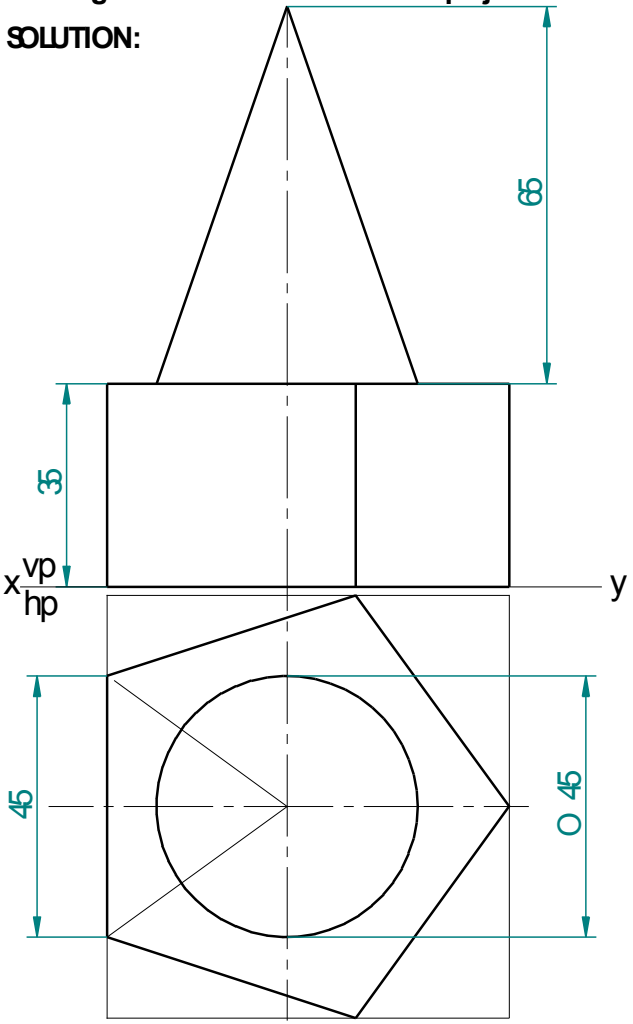
35. **A pentagonal pyramid base side - 25 mm and height 65 mm is placed centrally on a rectangular slab 100 mm X 60 mm and 20 mm thick. Draw the isometric projection of the combination.**

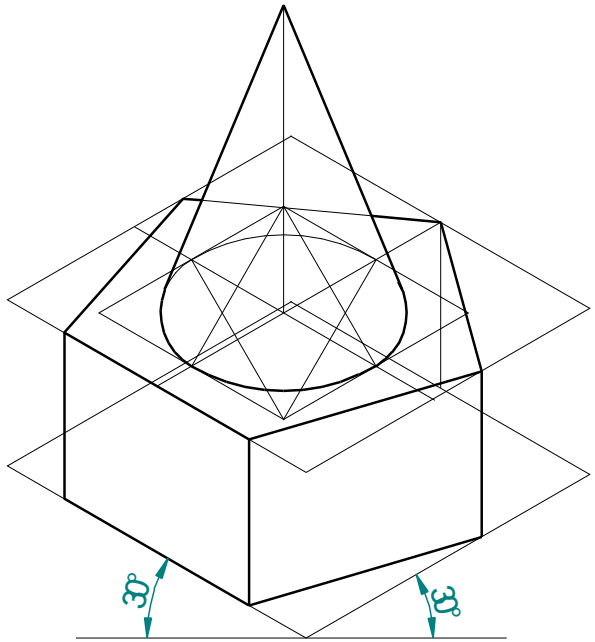
SOLUTION:



36. A cone base diameter 45 mm and height 65 mm and height 65 mm is placed centrally on the top face of a pentagonal prism side - 45 mm and height 35 mm. Draw the isometric projection of the combination.

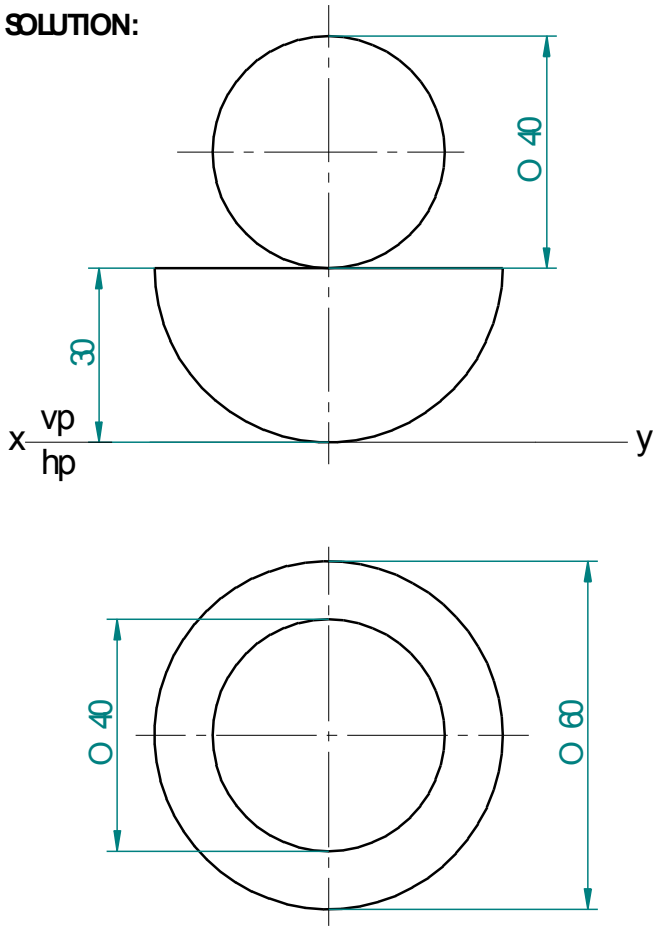
SOLUTION:

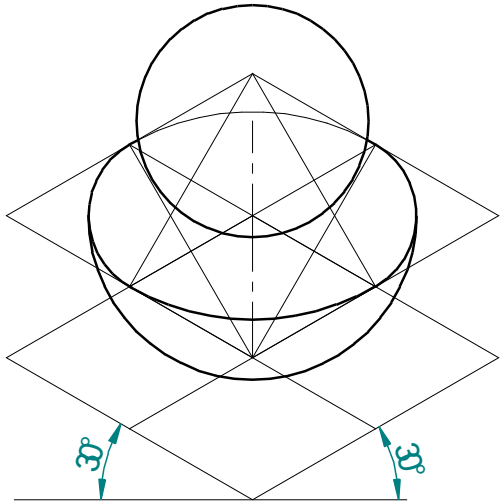




37. A sphere diameter 40 mm is placed centrally on the flat face of a hemisphere diameter 60 mm. Draw the isometric projection of the combination.

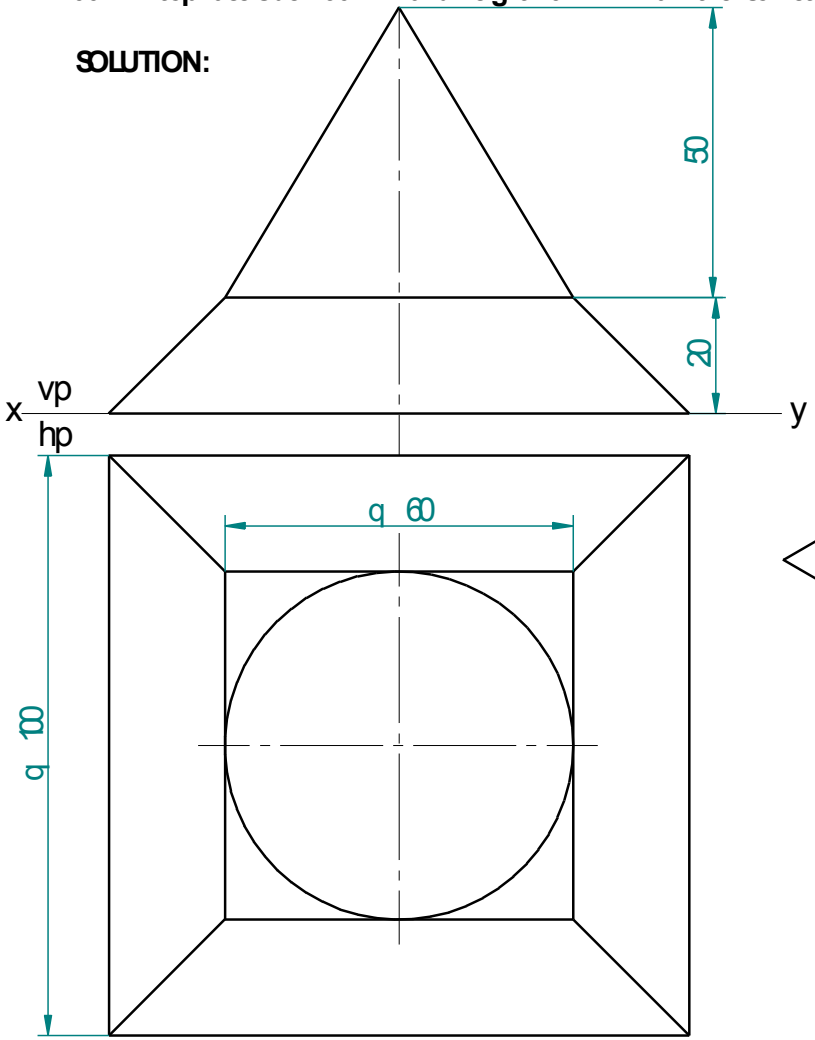
SOLUTION:

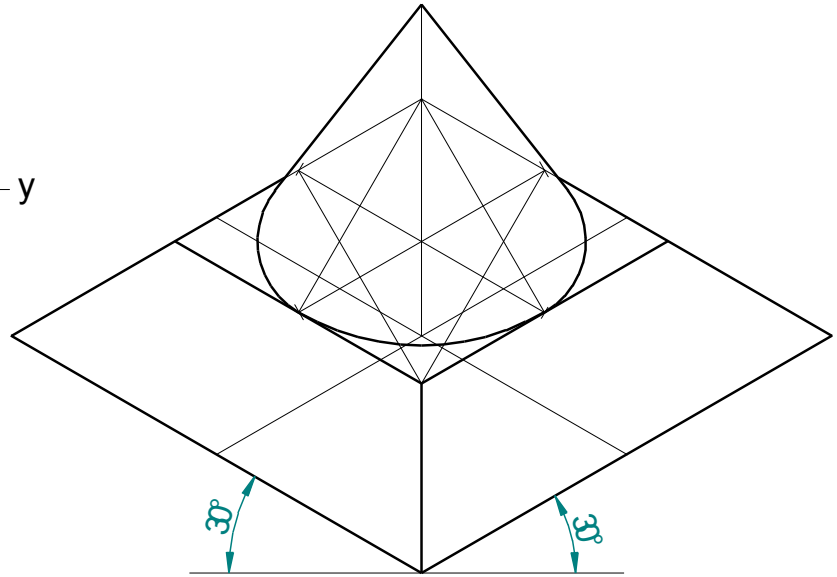




38. A cone of base diameter 60 mm, top diameter 40 mm and height 50 mm is placed centrally on frustum of a square pyramid base side 100 mm top face side - 60 mm and height 20 mm. Draw the isometric projection of the combination.

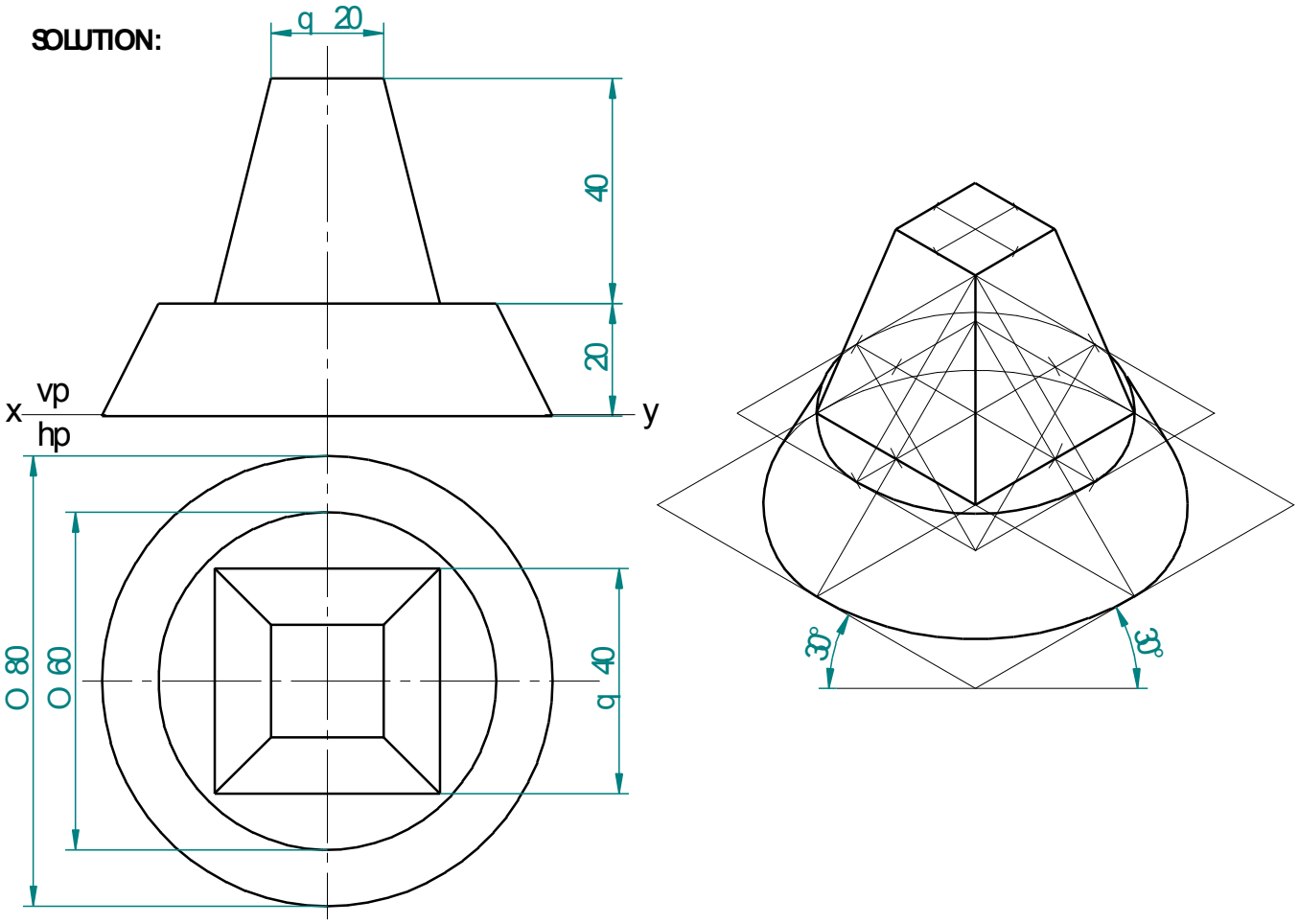
SOLUTION:





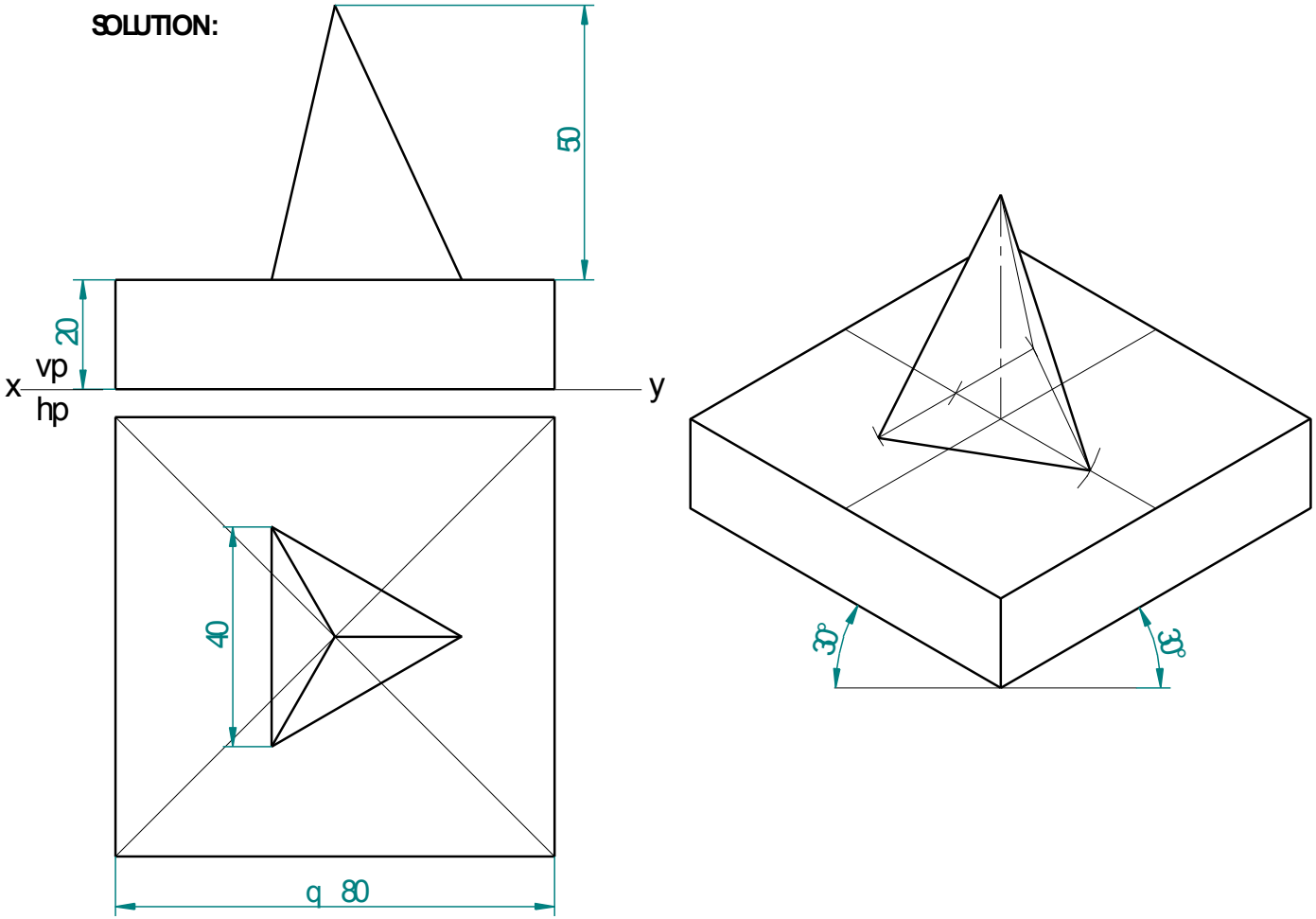
39. A frustum of a square pyramid base side - 40 mm, top face side - 20 mm and height 40 mm is placed centrally on frustum of a cone base diameter 80 mm, top diameter 60 mm and height 20 mm. Draw the isometric projection of the combination.

SOLUTION:



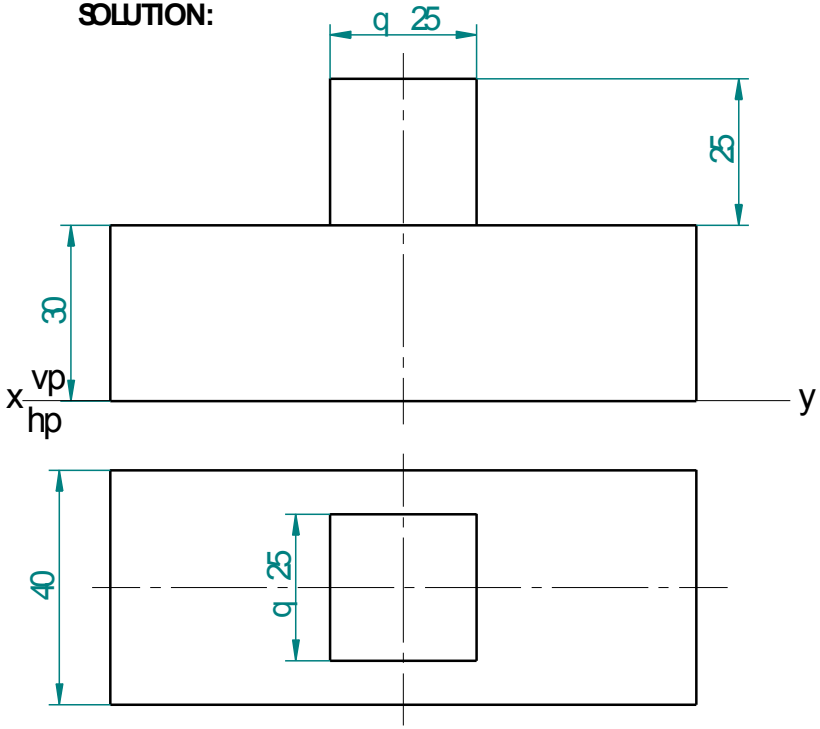
40. A triangular pyramid base side - 40 mm and height 50 mm is placed centrally on a square slab side - 80 mm and 20 mm thick. Draw the isometric projection of the combination.

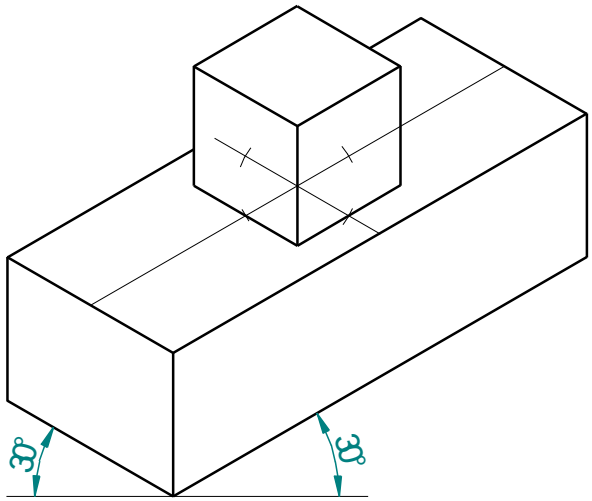
SOLUTION:



41. A cube of side - 25 mm is resting centrally on a rectangular slab 100 mm X 40 mm and 30 mm thick. Draw the isometric projection of the combination.

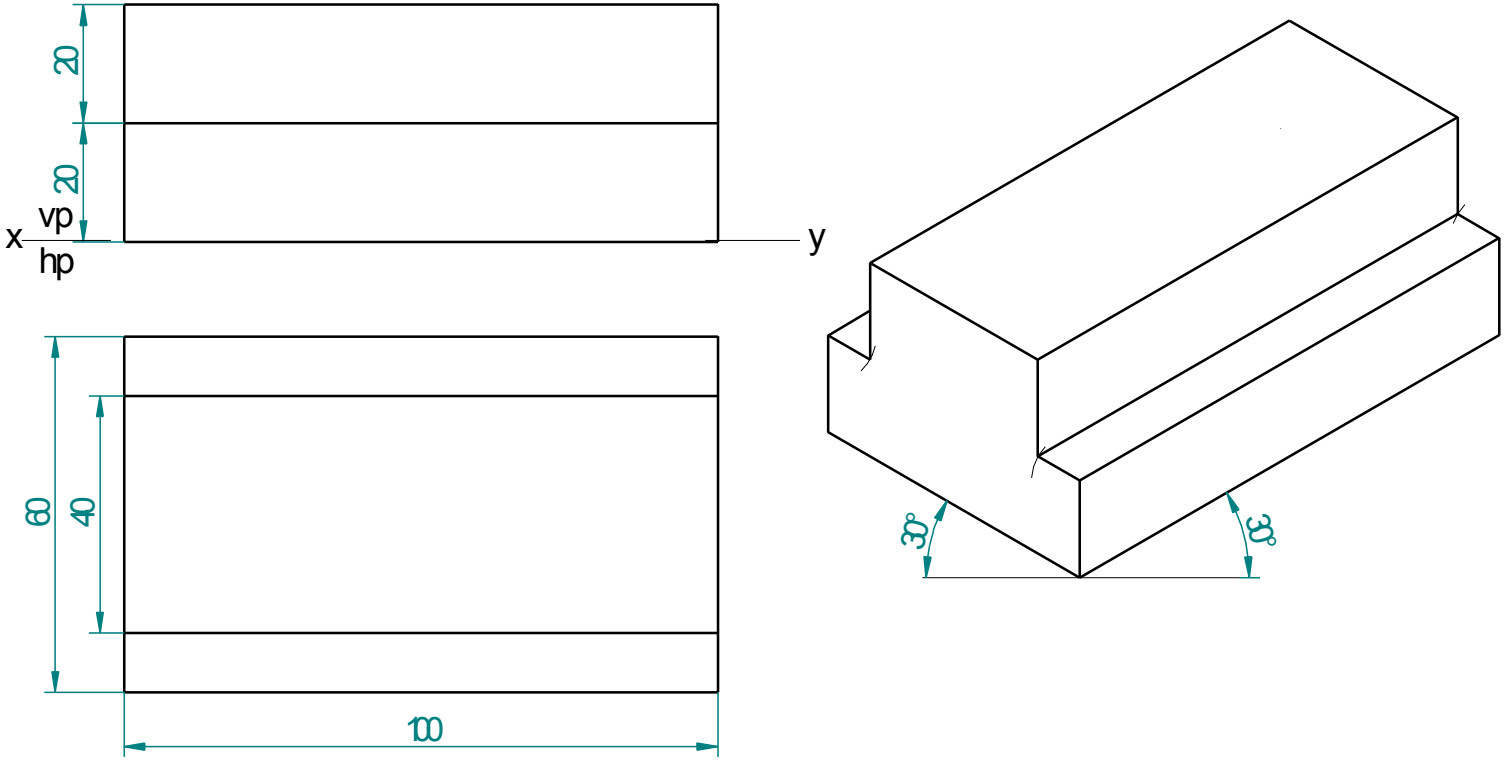
SOLUTION:





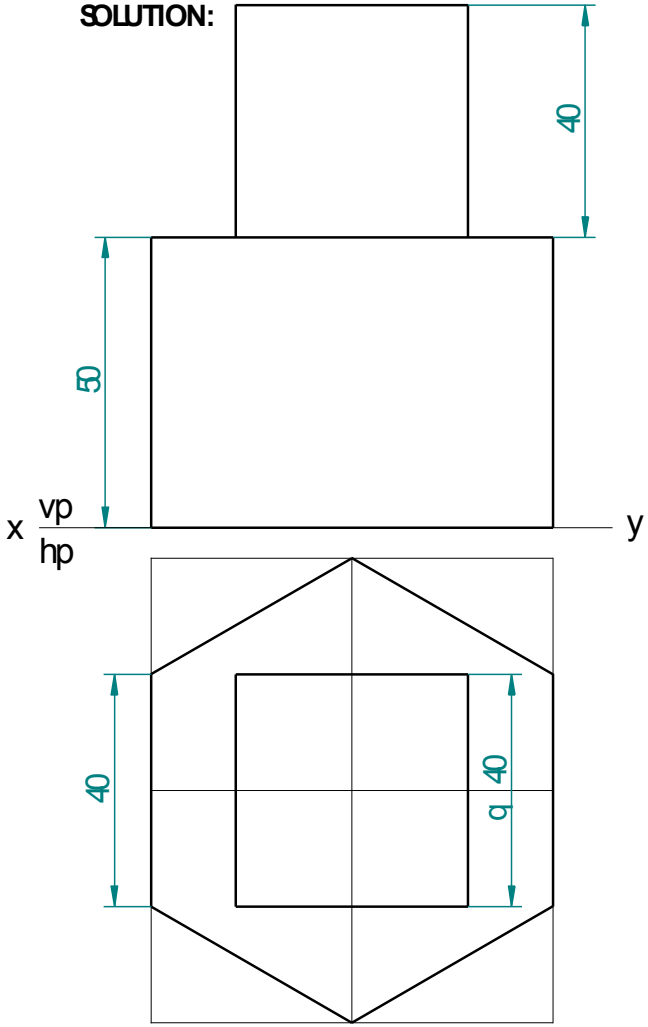
42. Two rectangular plates are placed centrally with dimensions (lxbxh) 100 mm X 60 mm X 20 mm and 100 mm X 40 mm X 20 mm such that longer edges are parallel. Draw the isometric projection of the combination.

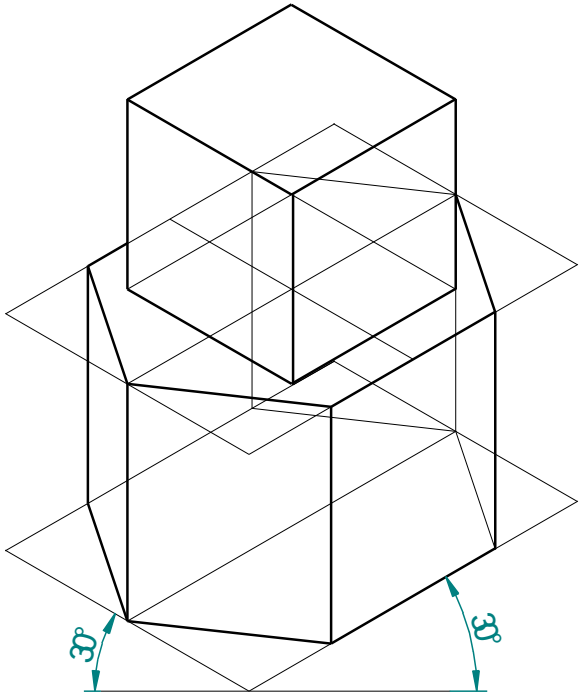
SOLUTION:



43. A cube of side - 40 mm is resting centrally on a hexagonal prism base side - 40 mm and height 50 mm, such that one of the base sides of the cube is parallel to one of the sides of the top face of the prism. Draw the Isometric projection of the combination.

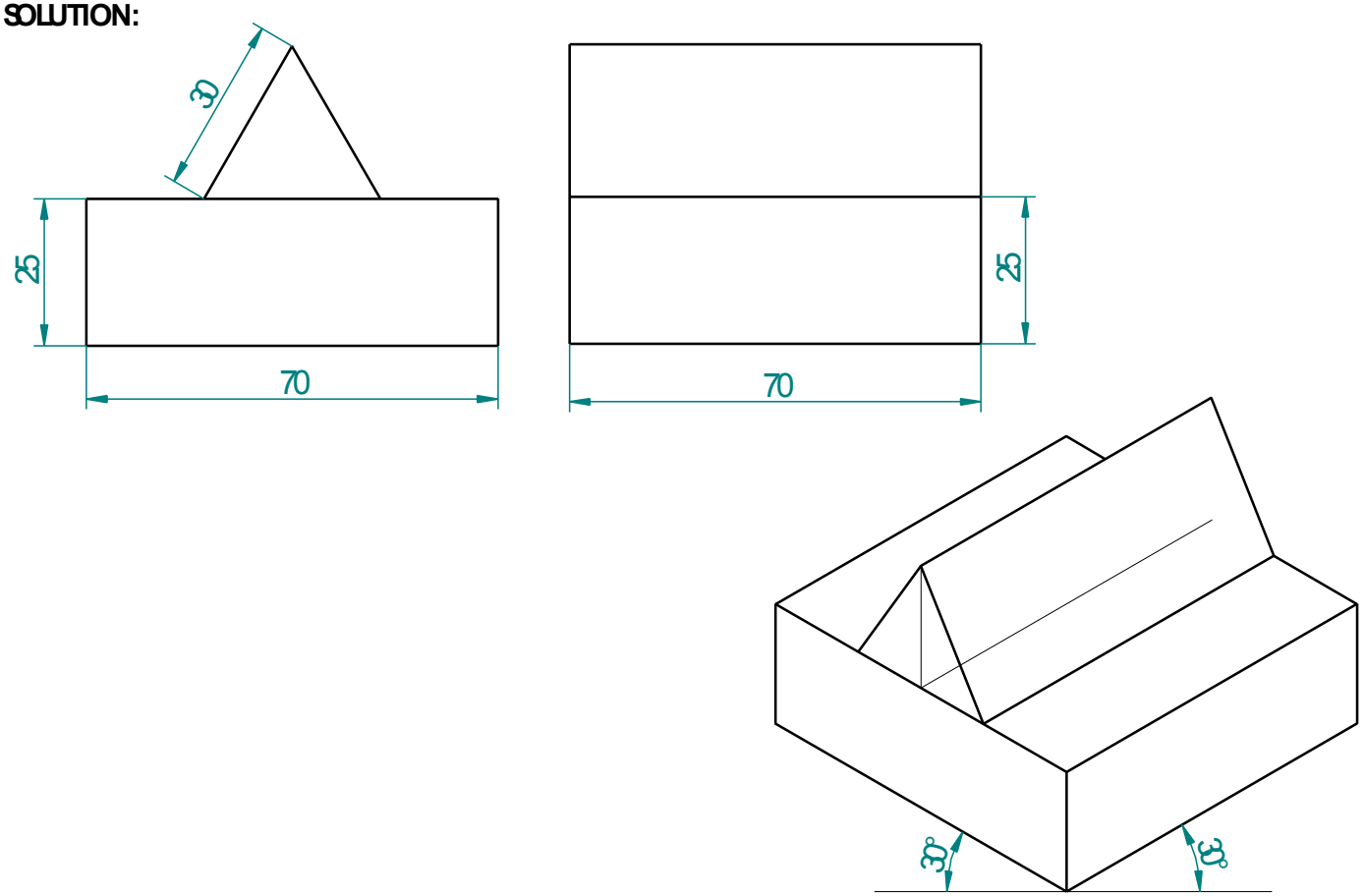
SOLUTION:





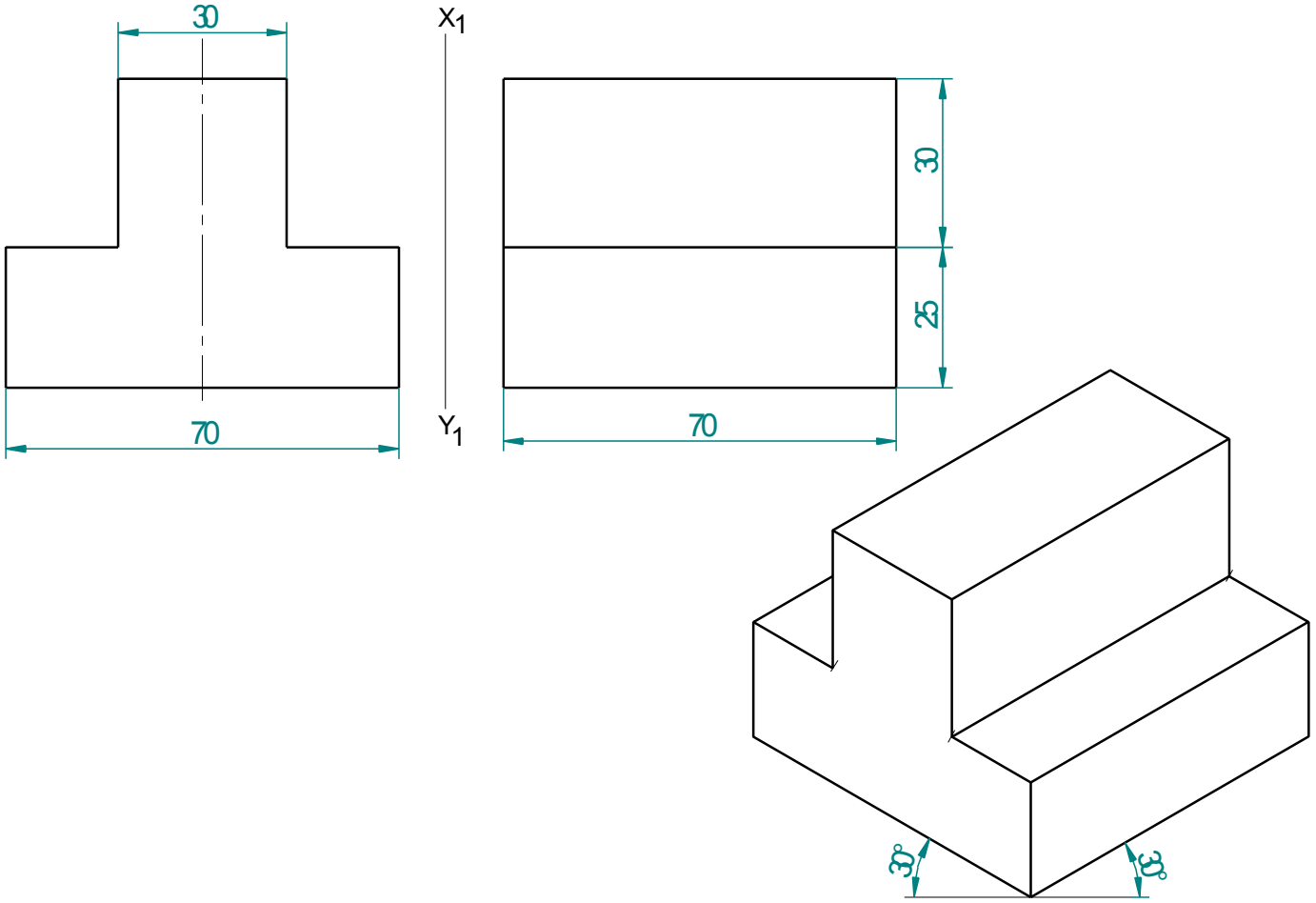
44. A triangular prism base side - 30 mm and length - 70 mm is resting on its rectangular face on top of a square slab side - 70 mm and 25 mm thick. Draw the isometric projection of the combination.

SOLUTION:



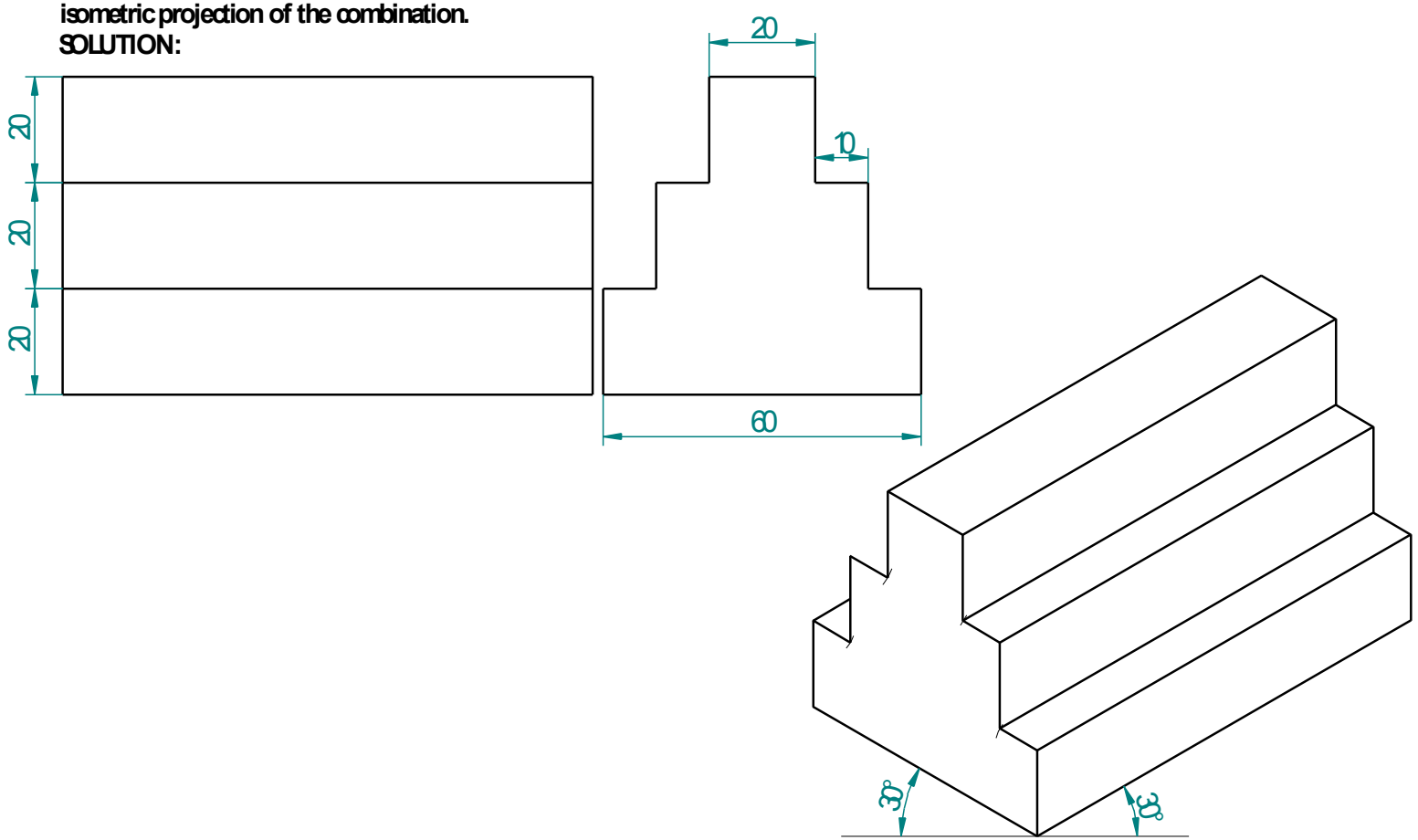
45. A square prism of base side - 30 mm and length - 70 mm, is resting on its rectangular face on top of a square slab side - 70 mm and 25 mm - thick. Draw the isometric projection of the combination.

SOLUTION:



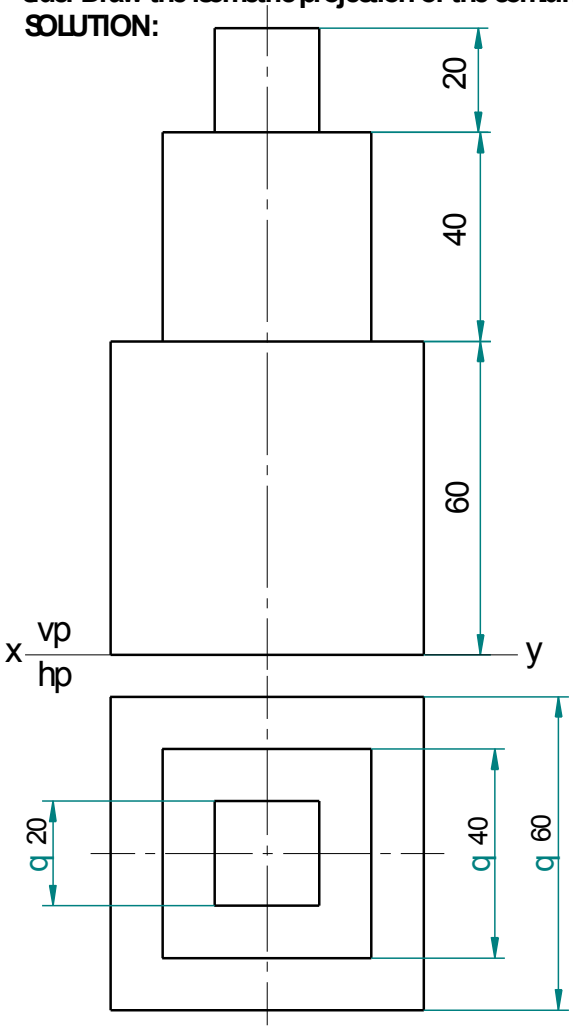
46. Three rectangular slabs (lxbxh) 100 mm X 60 mm X 20 mm, 100 mm X 40 mm X 20 mm and 100 mm X 20 mm X 20 mm are placed one above the other in the ascending order of their width - b, such that their longer axes are co-planar. Draw the isometric projection of the combination.

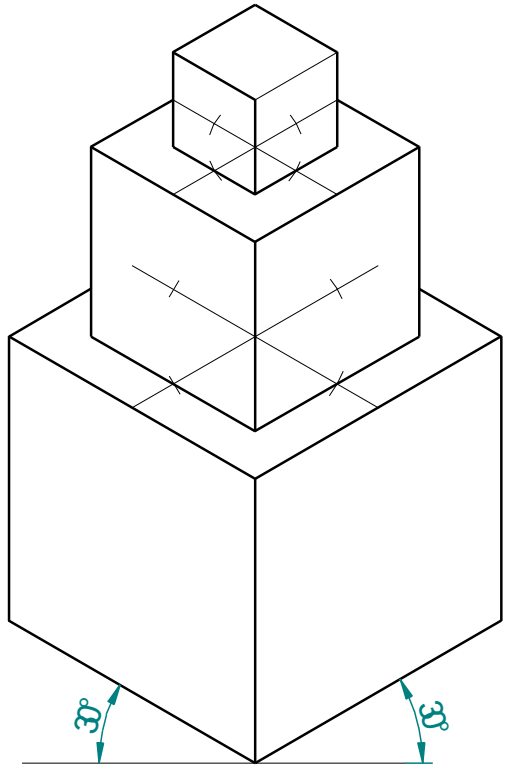
SOLUTION:



47. Three cubes of sides 60 mm, 40 mm and 20 mm are placed centrally one above the other in the ascending order of their side. Draw the isometric projection of the combination.

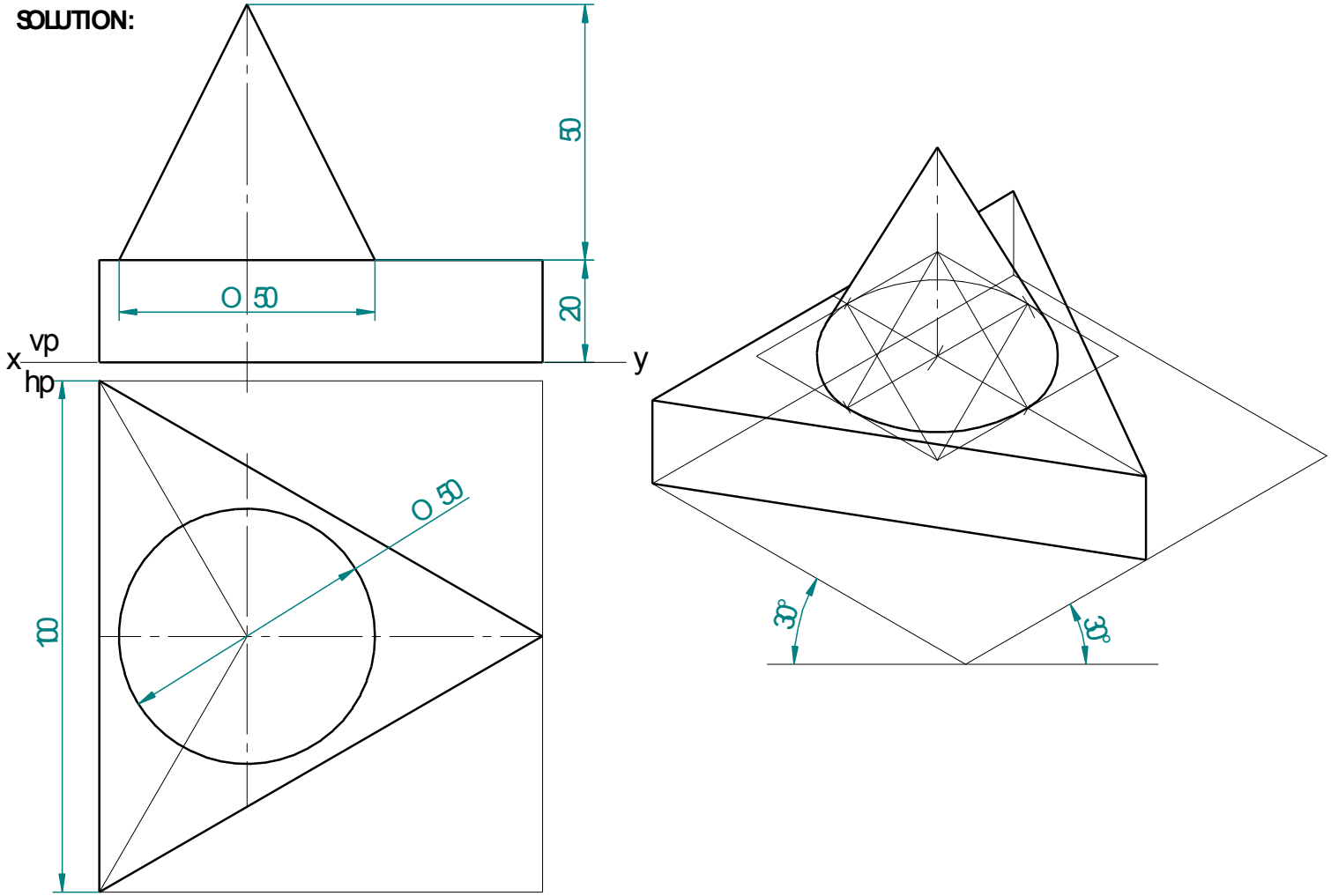
SOLUTION:





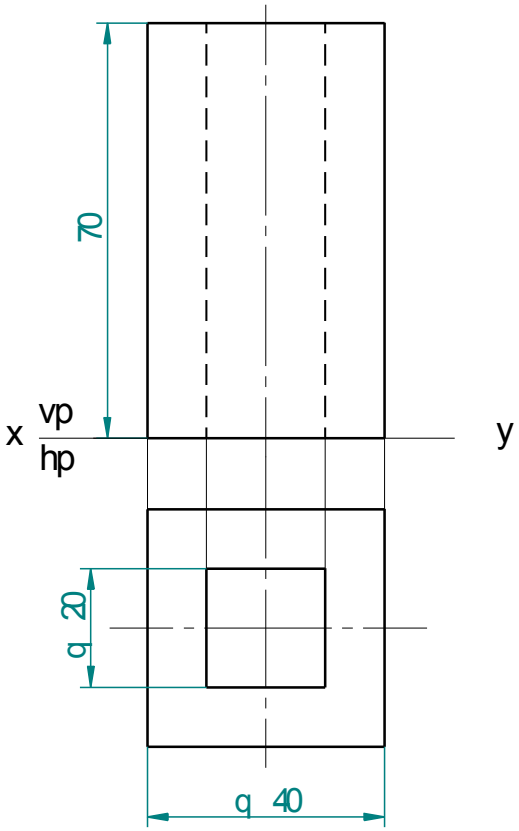
48. A cone of base diameter 50 mm and height 60 mm is placed centrally on an equilateral triangular prism of side - 100 mm and 20 mm thick. Draw the isometric projection of the combination.

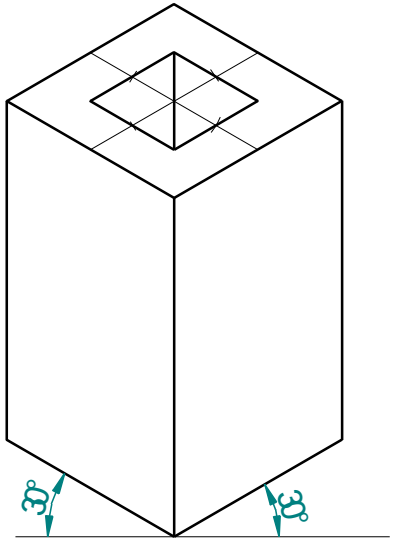
SOLUTION:



49. A square prism side - 40 mm and height 70 mm has a full depth co-axial square hole side - 20 mm such that the edges of both the squares are parallel. Draw the isometric projection of the combination.

SOLUTION:





50. A rectangular slab base - 100 mm X 80 mm and height 30 mm has a full depth co-axial square hole side 40 mm, such that one of the sides of the square is parallel to one of the sides of the rectangle. Draw the isometric projection of the combination.

SOLUTION: