

***NATIONAL EDUCATION FOUNDATION
GLOBAL ACADEMY OF TECHNOLOGY***

***RAJARAJESHWARI NAGAR
BANGALORE – 560 098.***

DEPARTMENT OF MECHANICAL ENGINEERING



I/II SEM

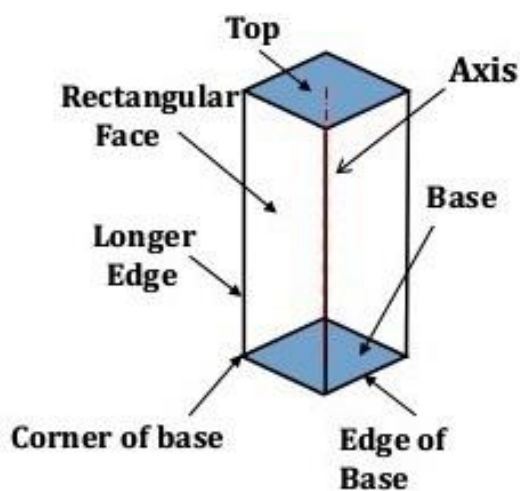
**Computer Aided Engineering Drawing
BCEDK24103/203**

**Prepared By:
Dr. Ravi Kumar V
Associate Professor**

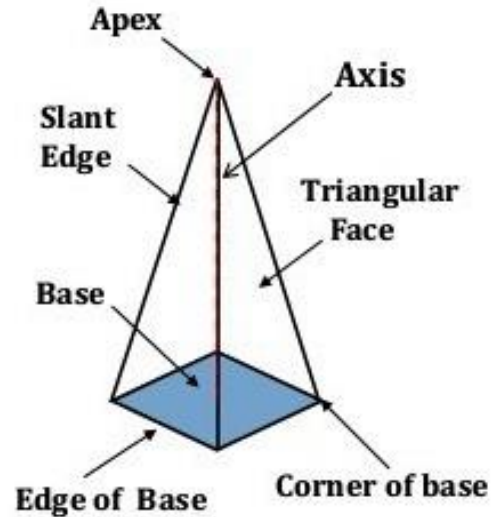
**Dr. Ravi Kumar D V
Associate Professor**

Projection of Solids

Square Prism

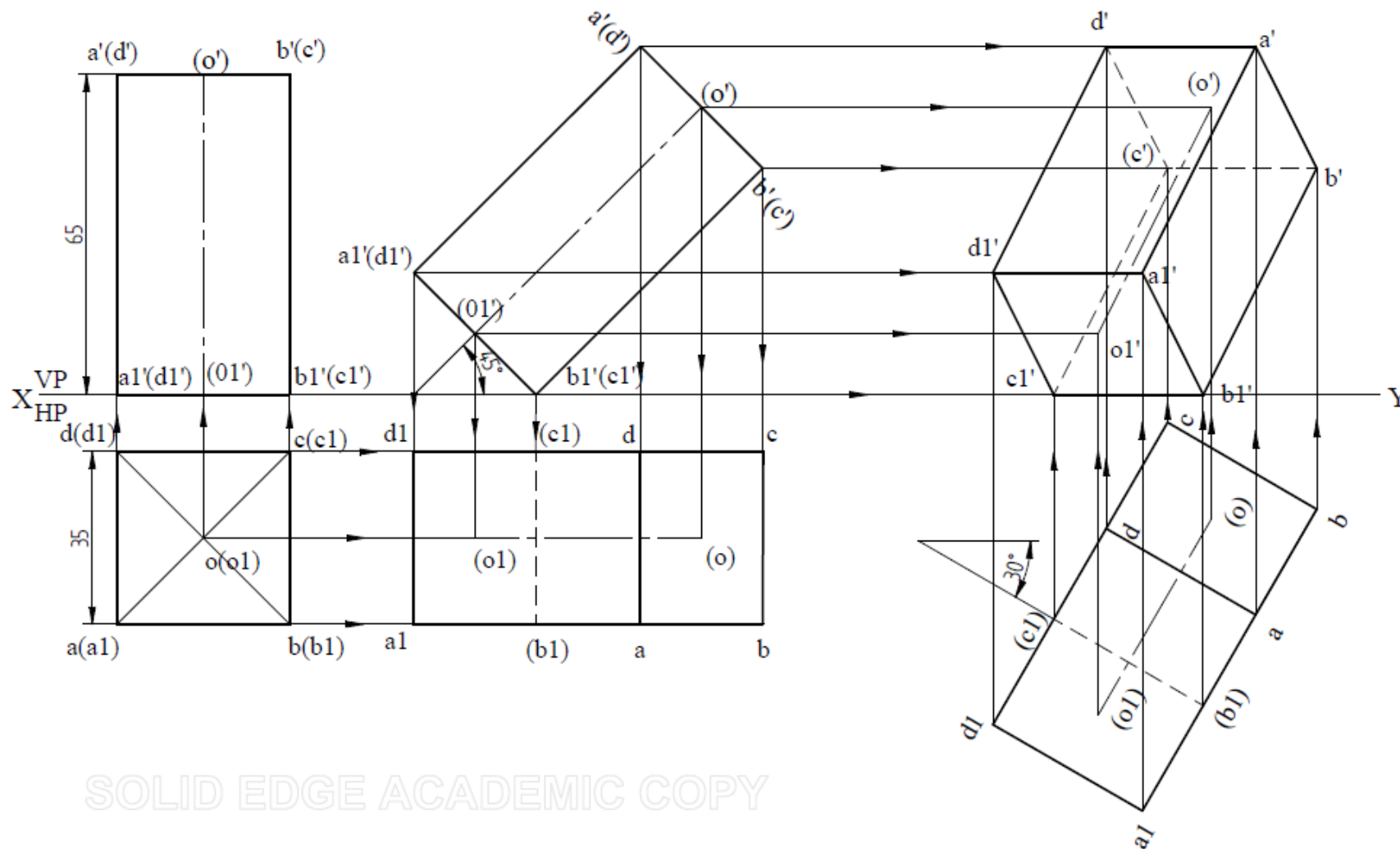


Square Pyramid



1. A square prism 35mm sides of base and 60mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° draw the projections of the prism when the axis is inclined to HP at 45° .

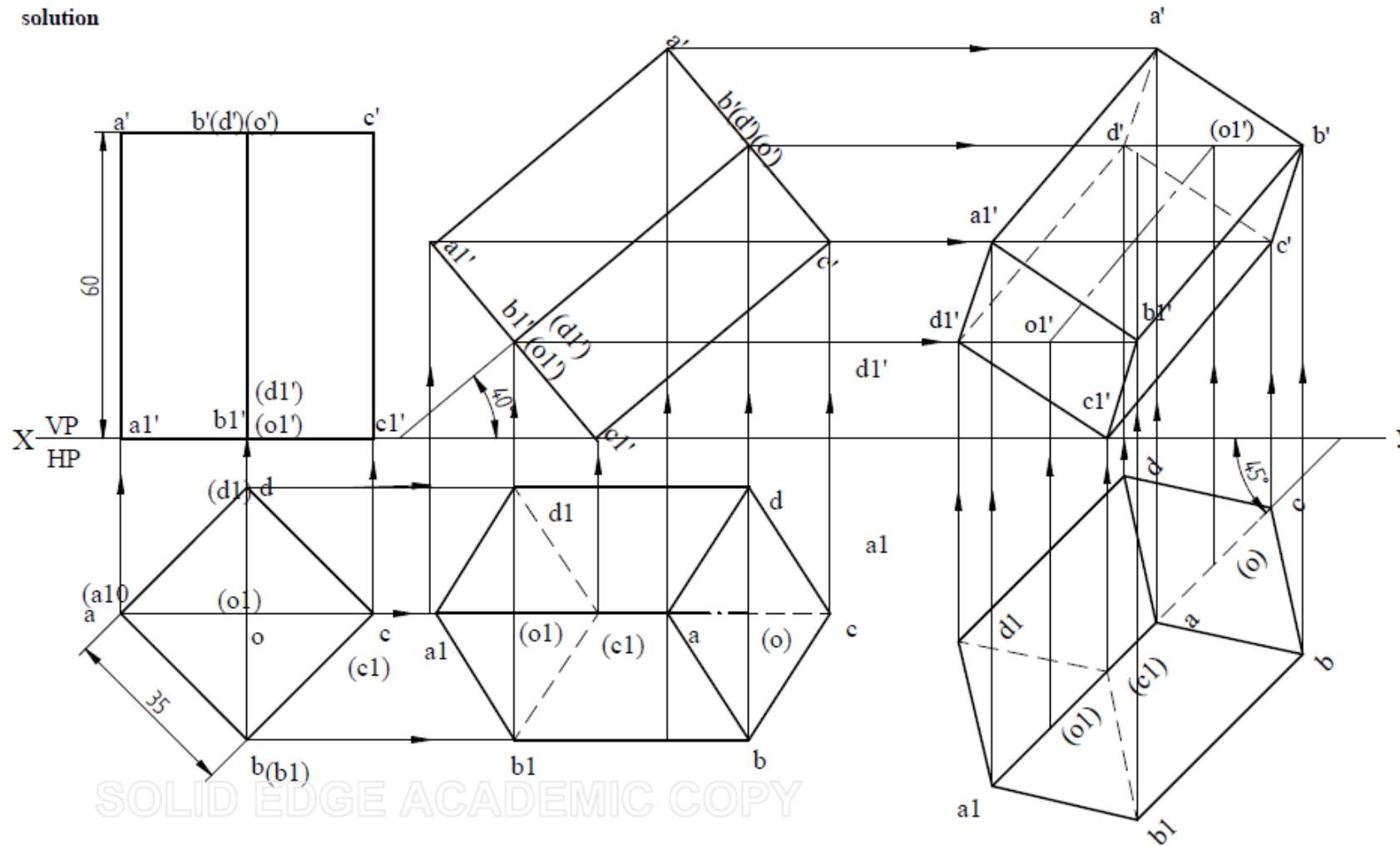
Solution



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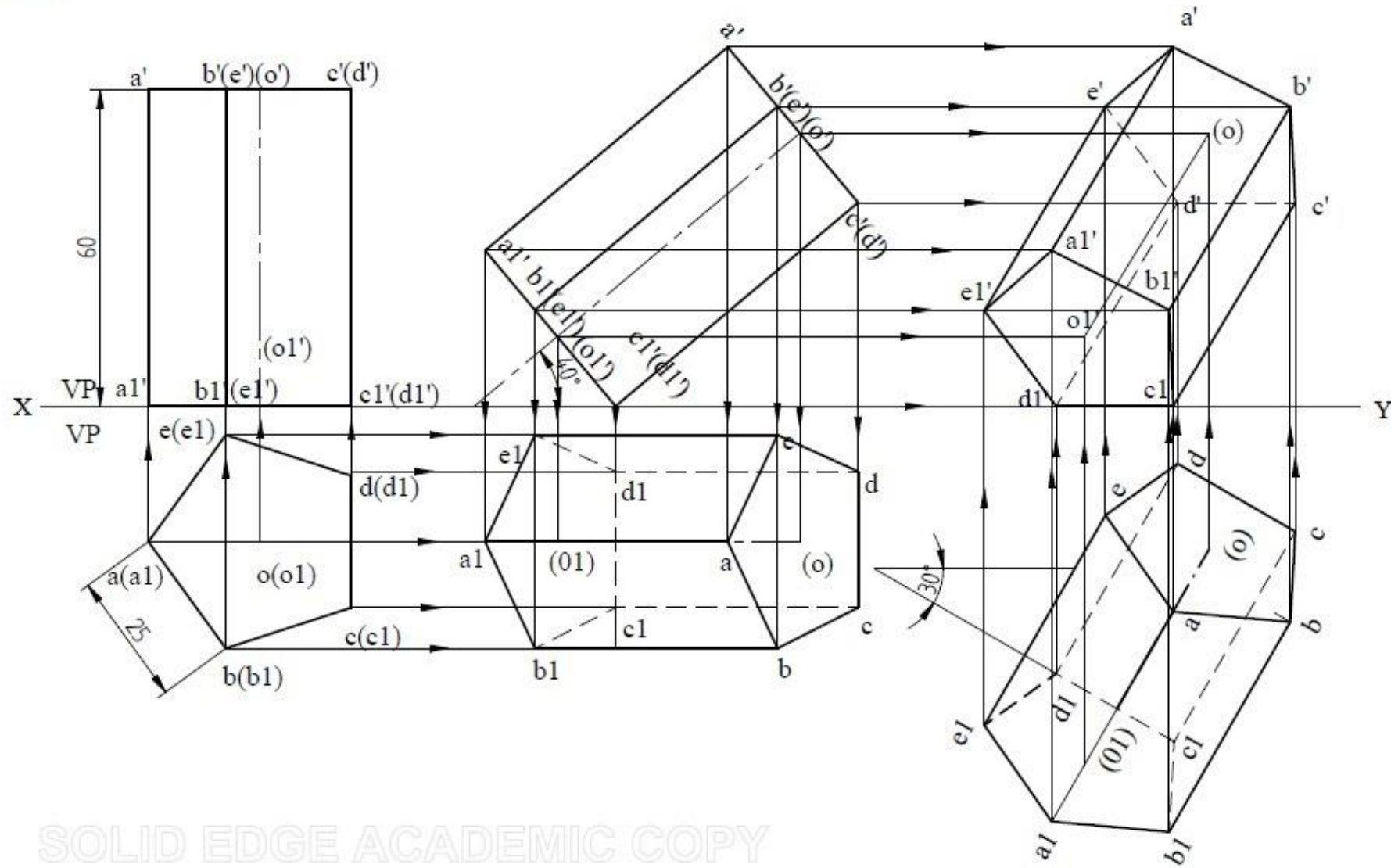
- 2) A square prism 35mm sides of base and 60mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45° .

solution



- 3) A pentagonal prism 25mm sides of base and 60mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° . Draw the projections of the prism when the axis is inclined to HP at 40° .

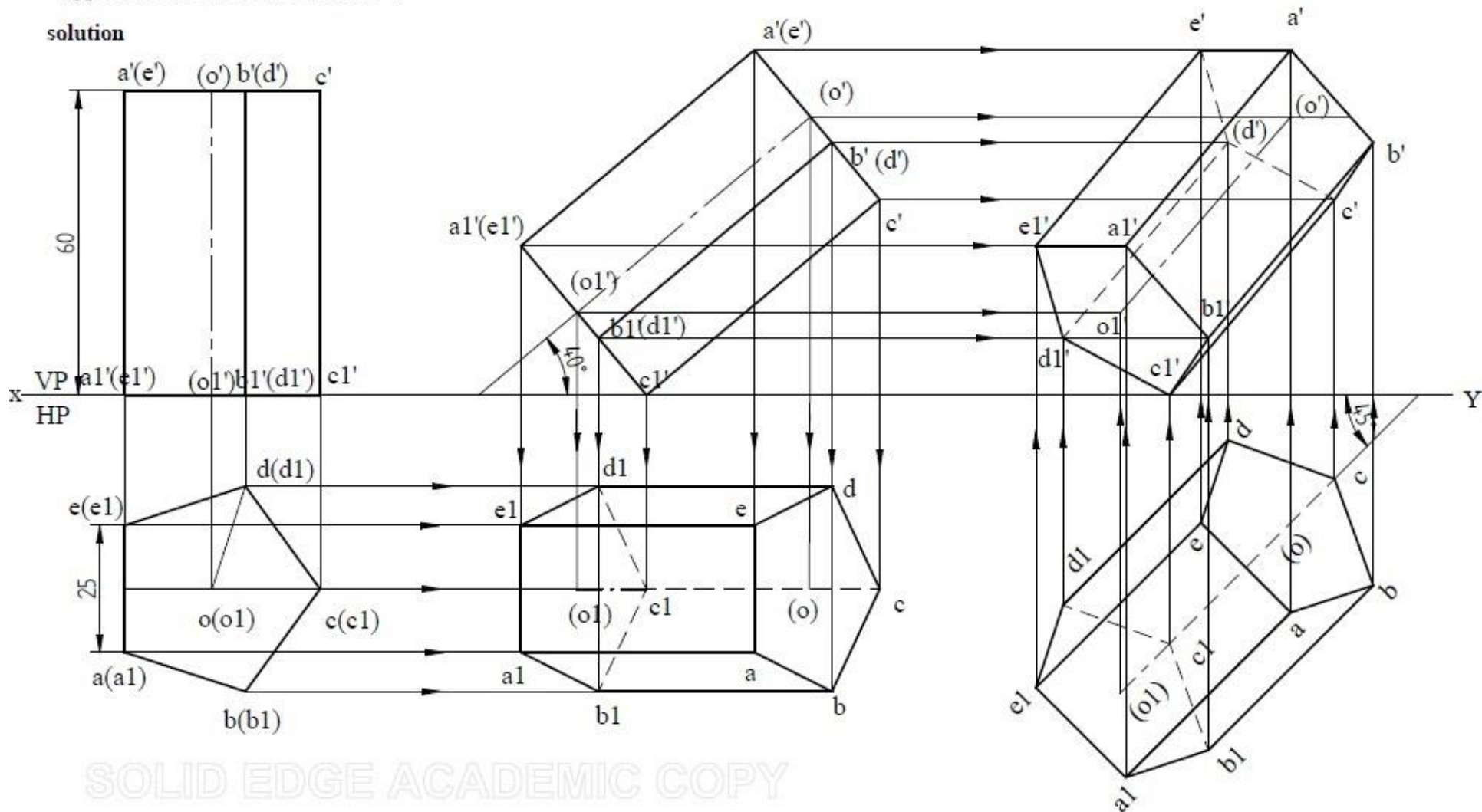
solution



SOLID EDGE ACADEMIC COPY

- 4) A pentagonal prism 25mm sides of base and 60mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45° .

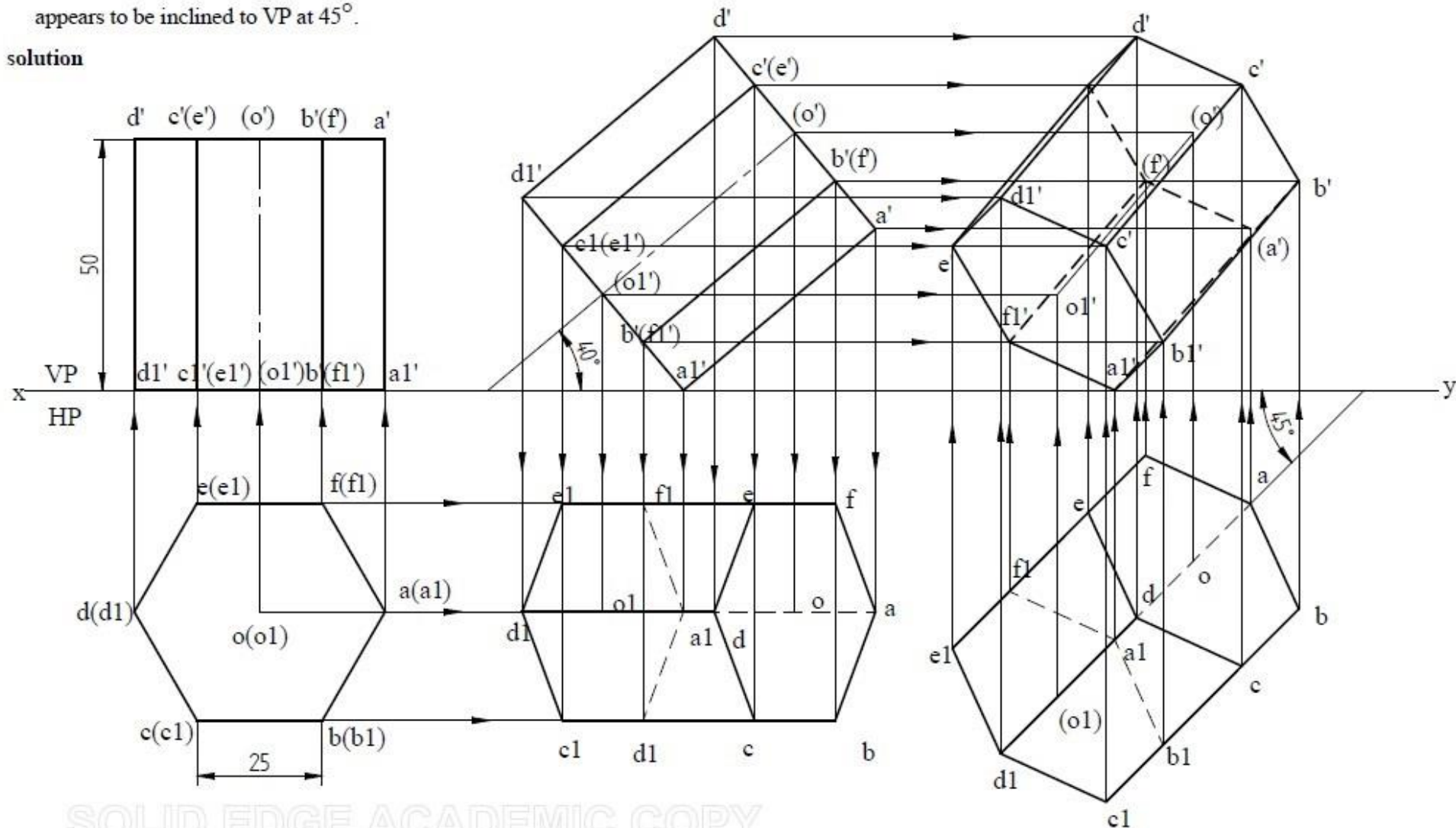
solution



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- 5) A hexagonal prism 25mm sides of base and 50mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined to VP at 45° .

solution

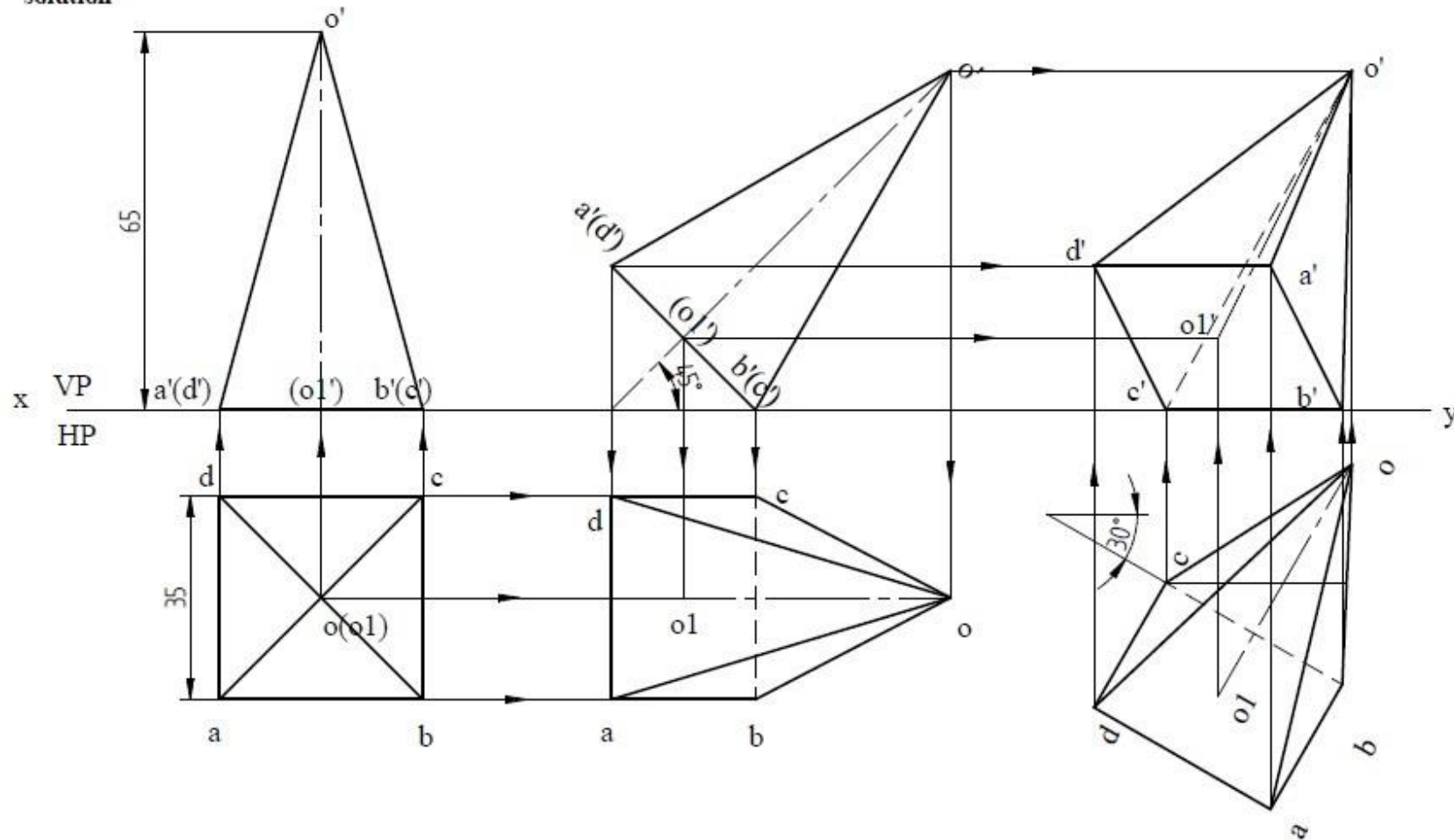


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PYRAMIDS

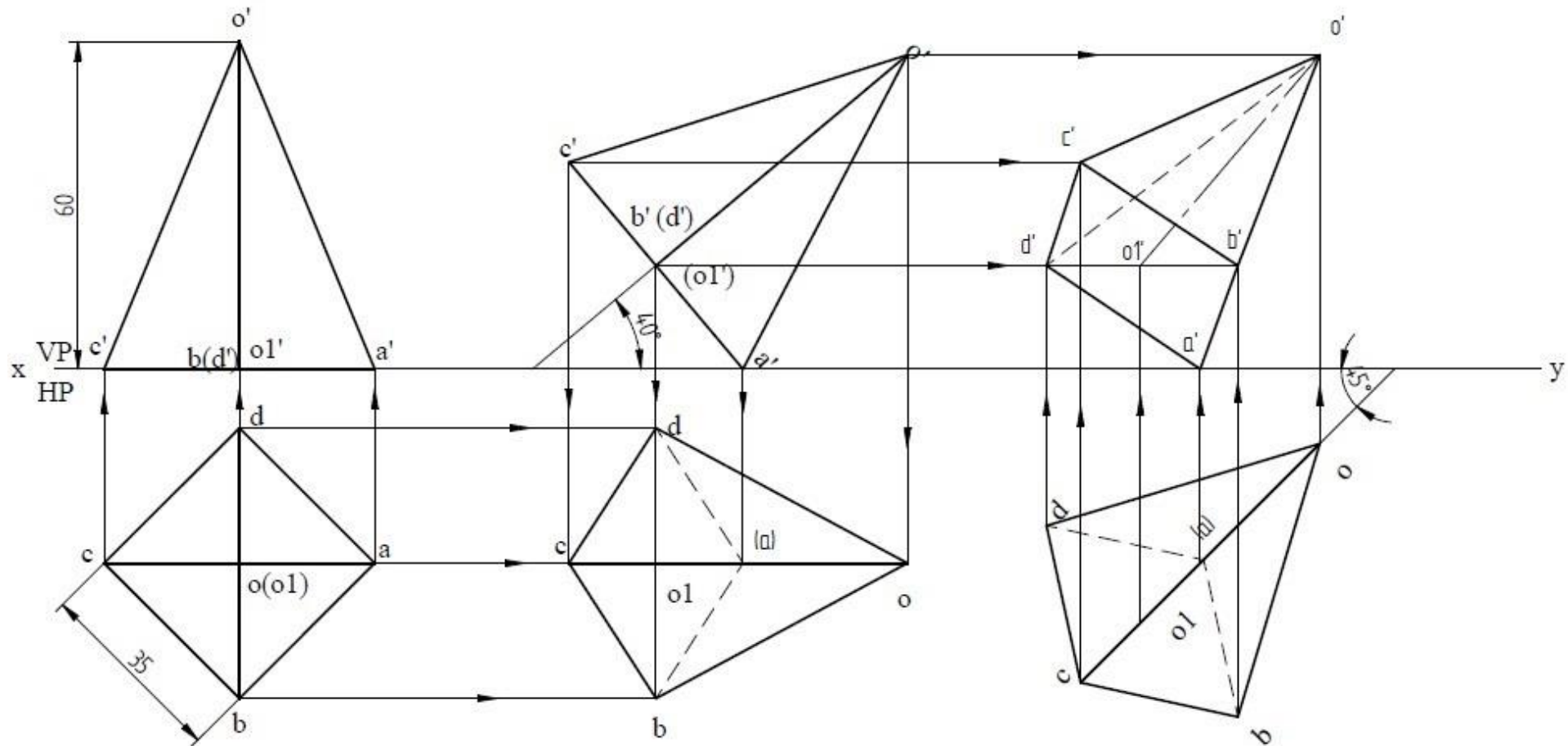
- 6) A square pyramid 35mm sides of base and 65mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° . Draw the projections of the pyramid when the axis is inclined to HP at 45° .

solution



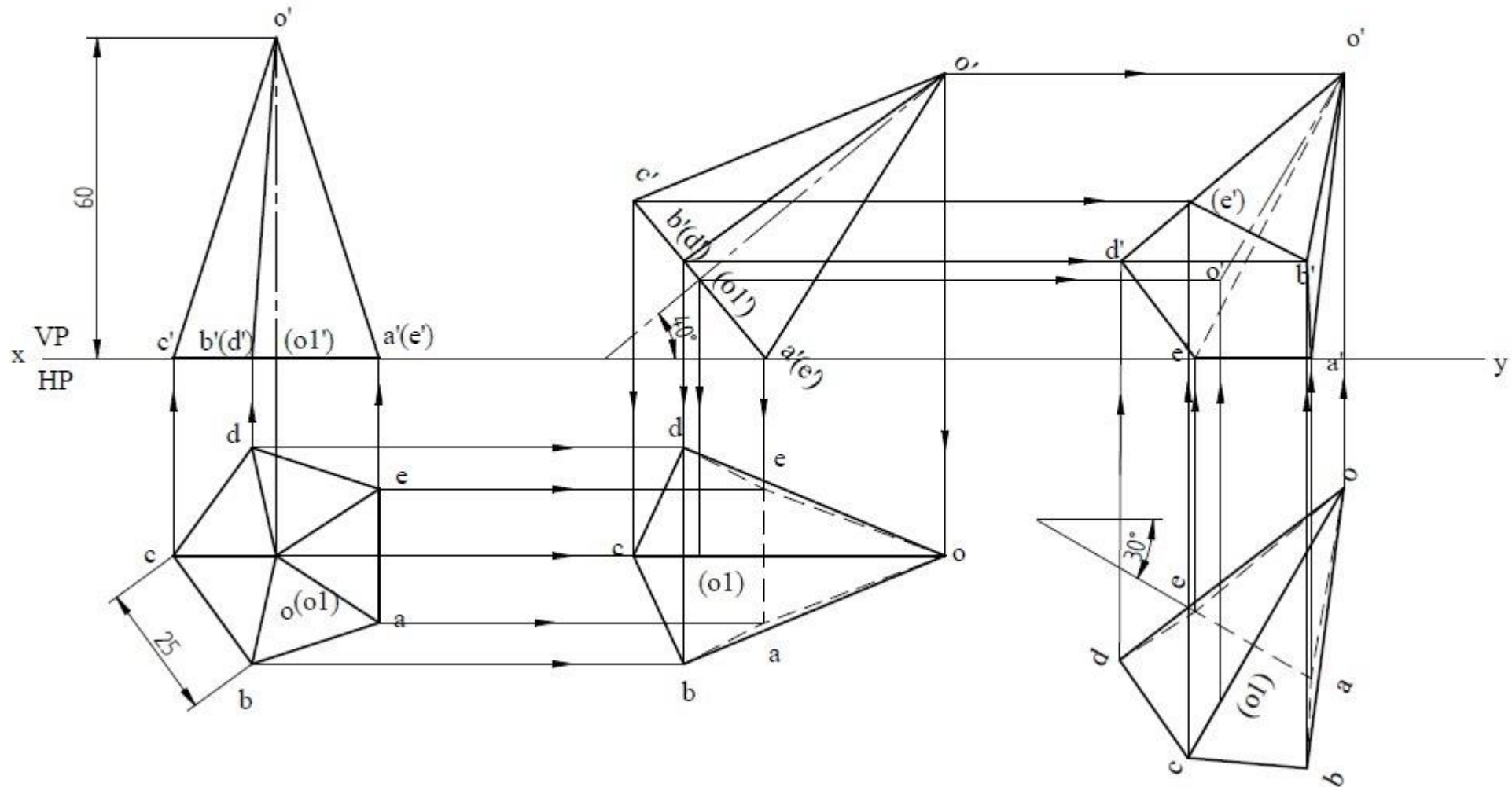
- 7) A square pyramid 35mm sides of base and 60mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and appears to be inclined to VP at 45° .

solution



- 8) A pentagonal pyramid 25mm sides of base and 60mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° . Draw the projections of the pyramid when the axis is inclined to HP at 40° .

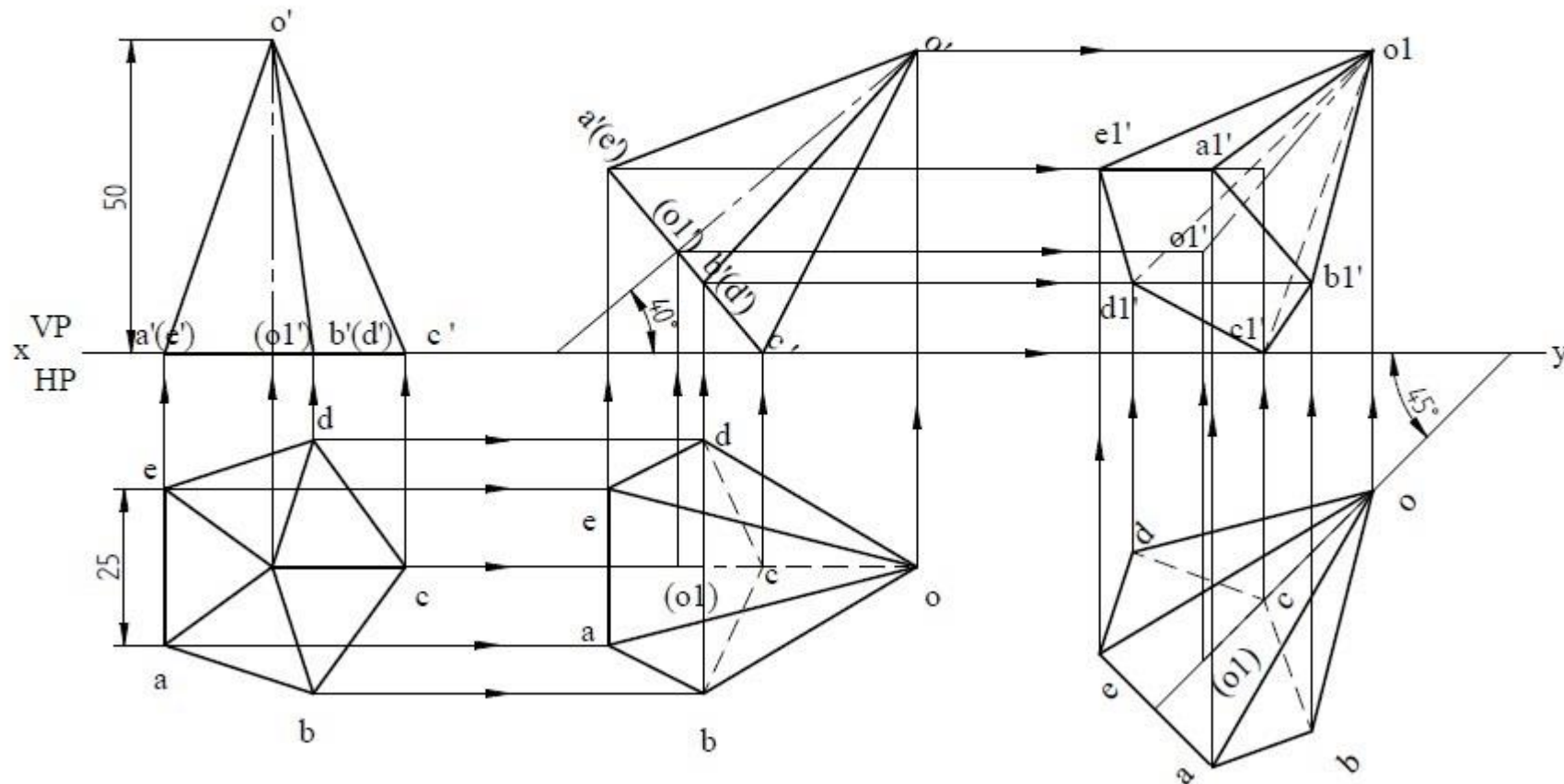
solution



SOI IN EDGE ACADEMIC COPY

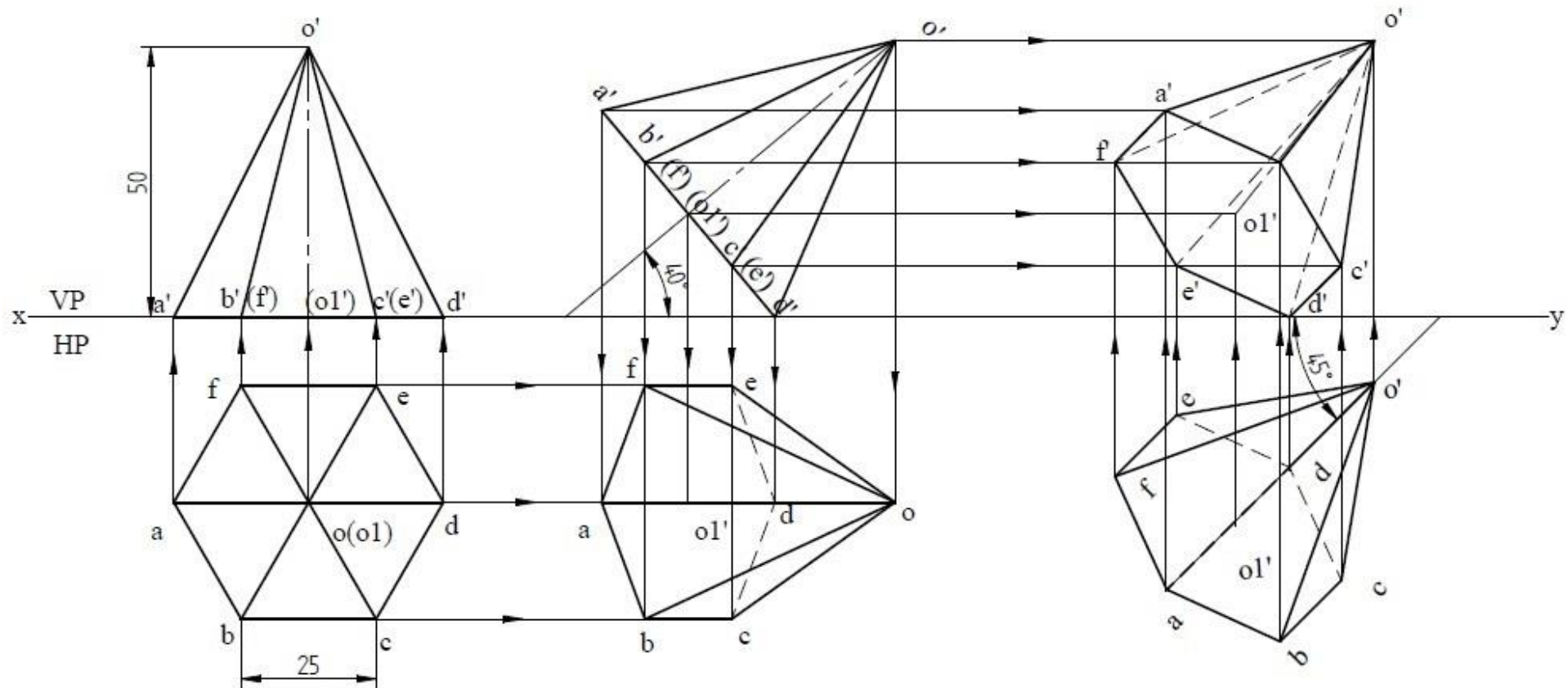
- 9) A pentagonal pyramid 25mm sides of base and 50mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to at 40° and appears to be inclined to VP at 45° .

solution



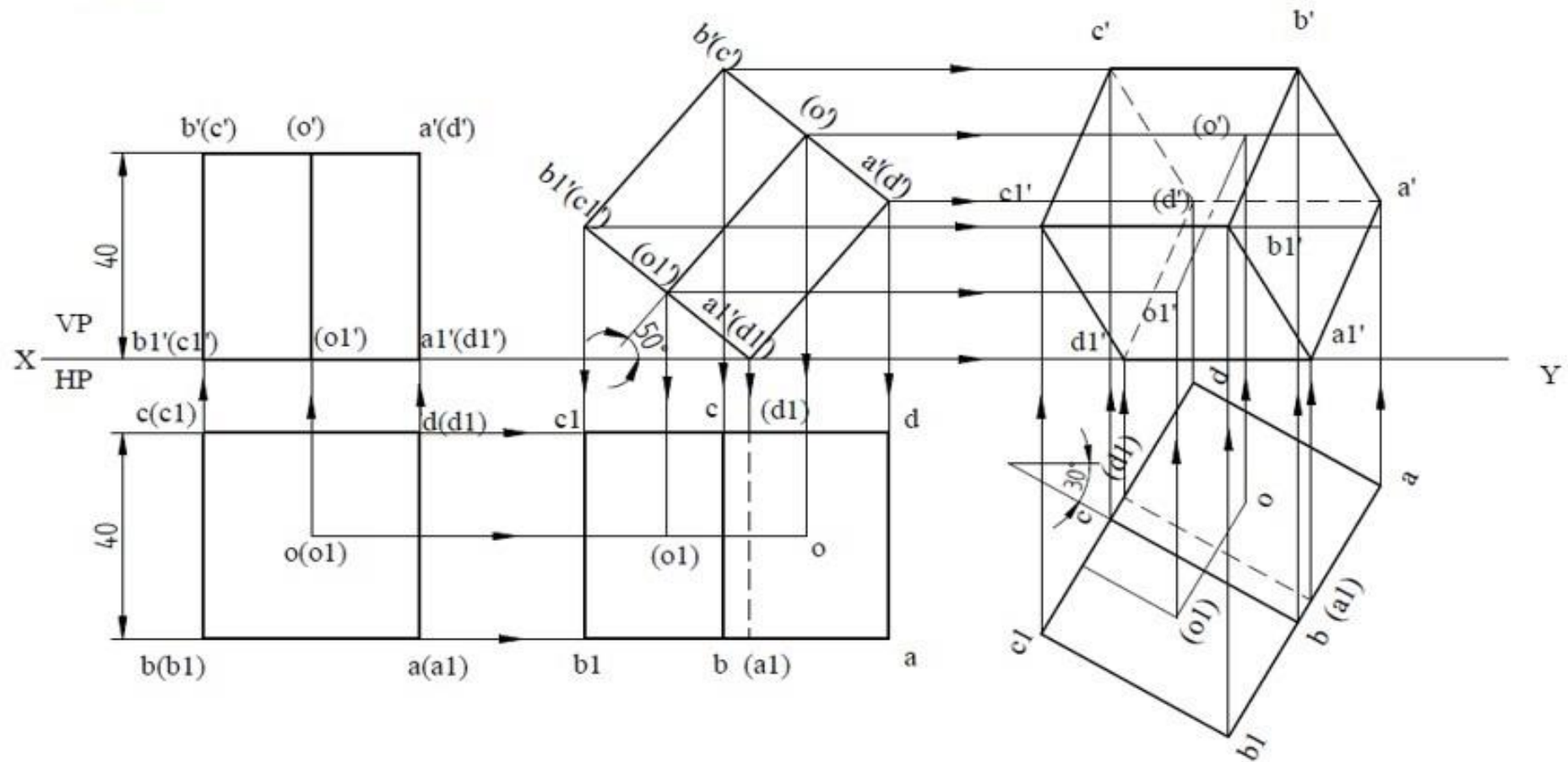
- 10) A hexagonal pyramid 25 mm sides of the and 50 mm axis length rests on HP on one of its corner of the base such that the two base edges containing the corner on which it rests make equal inclination with HP. Draw the projection of the pyramid inclined to HP 40° and appears to be inclined to VP at 45° .

solution

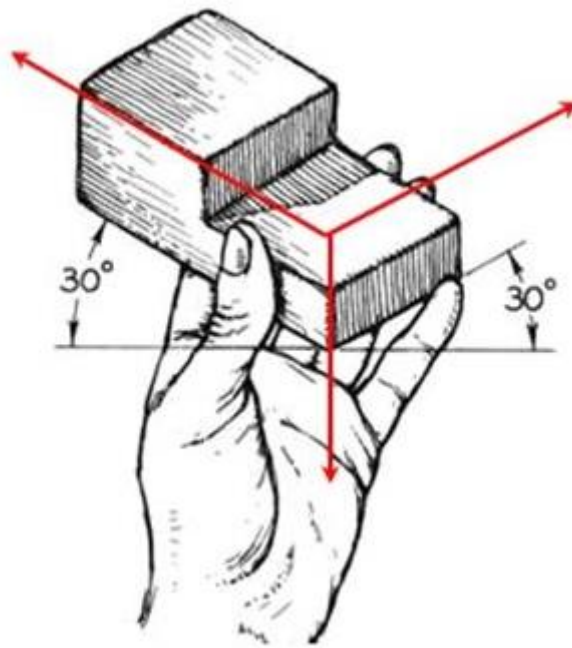


- 11) A cube of 40mm sides rests on HP on an edge which is inclined to VP at 30° . Draw the projections when the lateral square face containing the edge on which it rests makes an angle of 50° to HP.

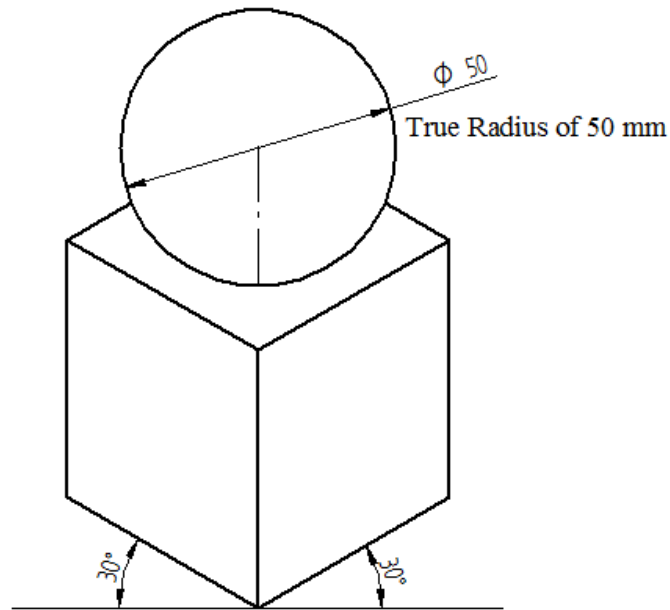
solution



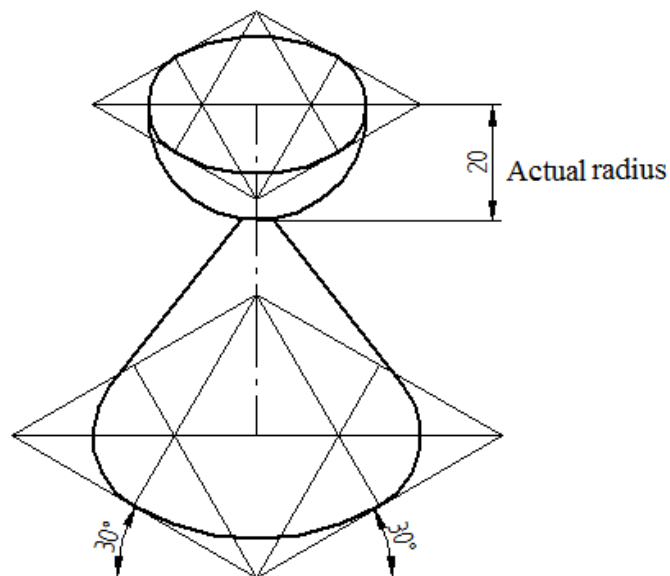
Isometric *projection*



- 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.

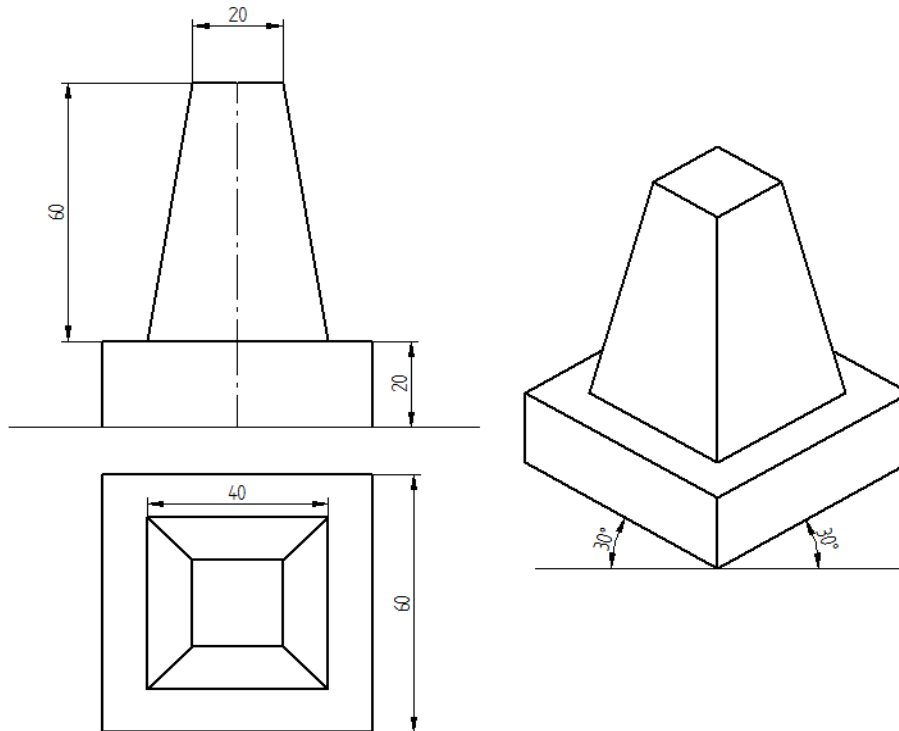
Solution

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

Solution

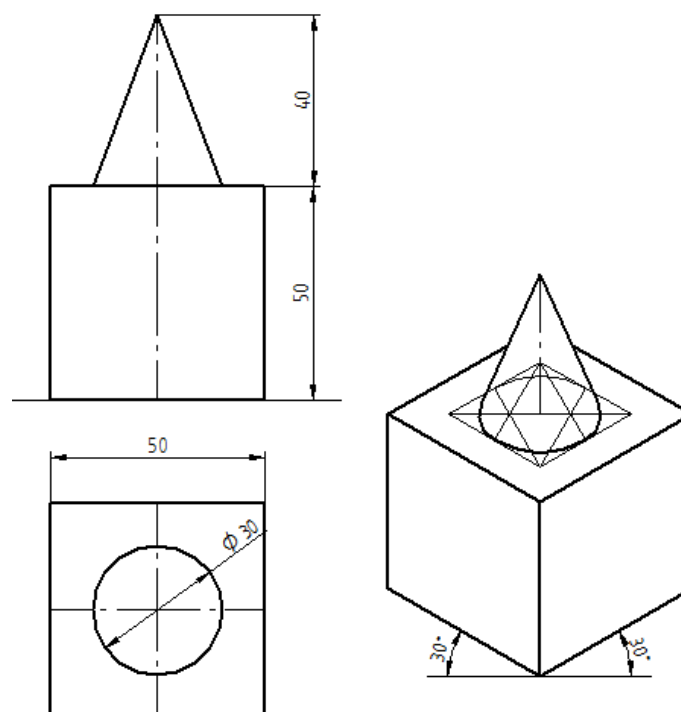
- 3) The frustum of a square pyramid of base 40 mm, top face 20 mm and height 60 mm rest on the center of the top of a square block of sides 60 mm and height 20 mm. The base edges of the pyramid are parallel to the top edges of the square block. Draw the isometric projection of the combination of the solids.

Solution



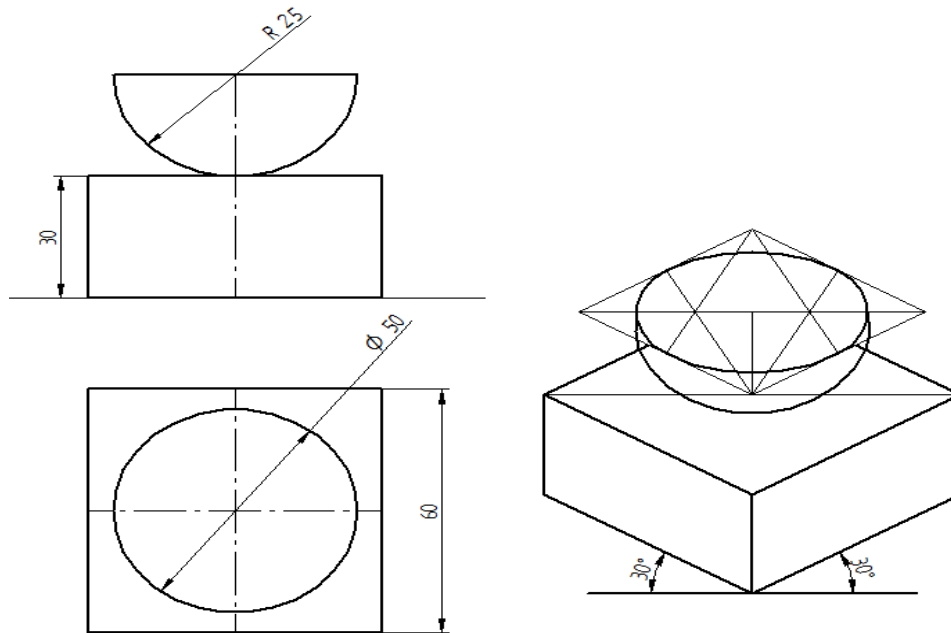
- 4) A cone of base diameter 30 mm and height 40 mm rests centrally over a cube of side 50 mm. draw the isometric projection of the combination of solids.

Solution



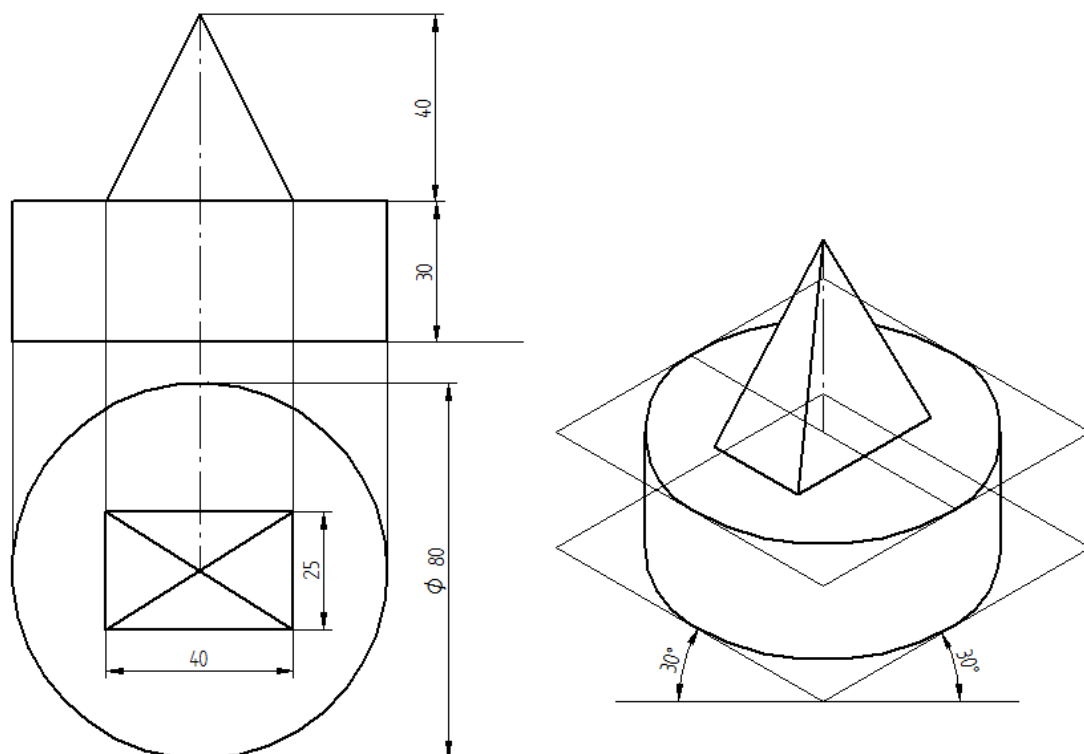
- 5) A hemisphere of diameter 50 mm is centrally resting on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of hemisphere is touching top face of the prism. Draw its isometric projections.

Solution



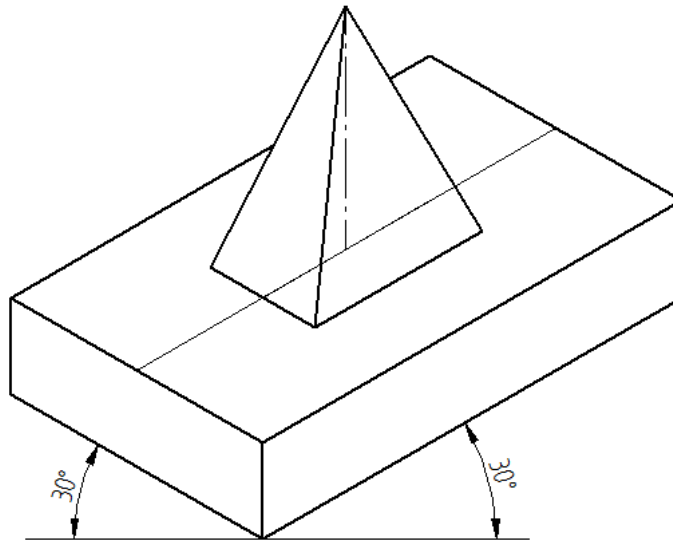
- 6) A rectangular pyramid of base - 40 mm X 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness - 30 mm. Draw the isometric projection of the combination.

Solution



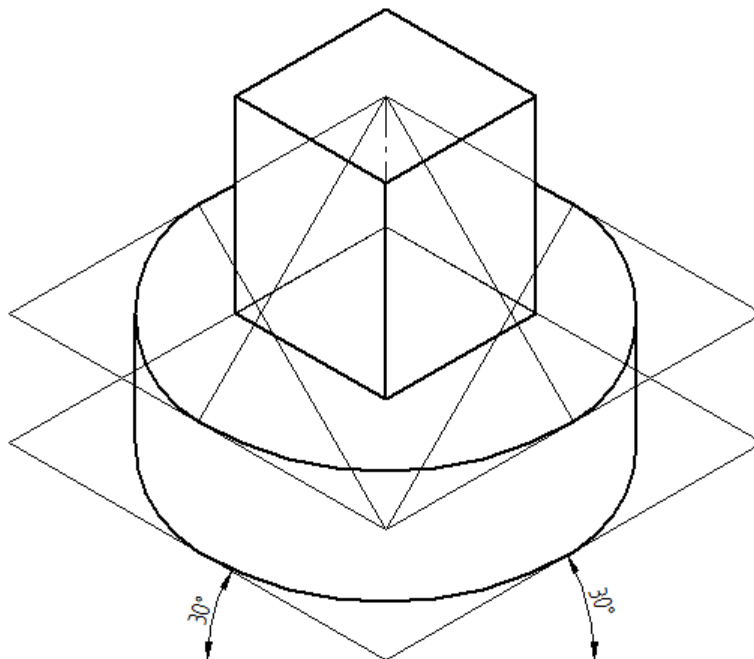
- 7) A rectangular pyramid of base - 40 mm X 25 mm and height 50 mm is placed centrally on a rectangular slab sides - 100 mm X 60 mm and thickness 20 mm. draw the isometric projections of the combination.

Solution



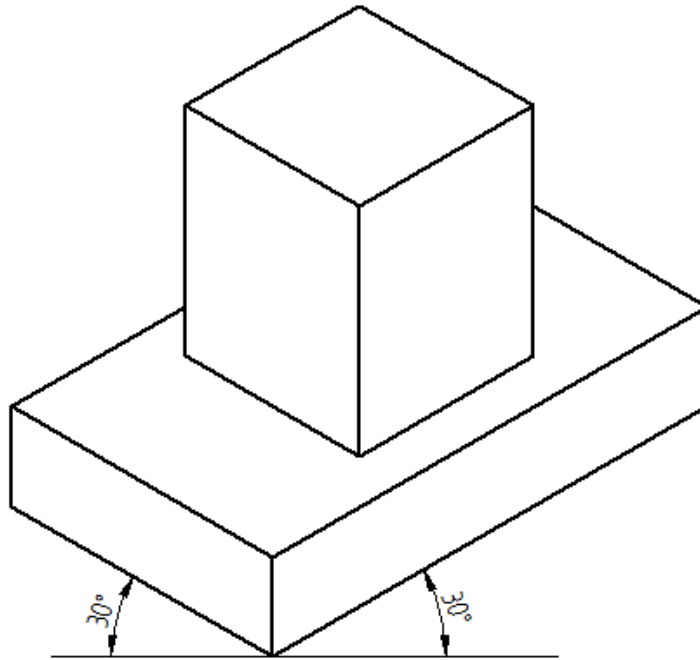
- 8) A square prism base side - 40 mm, height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination.

Solution

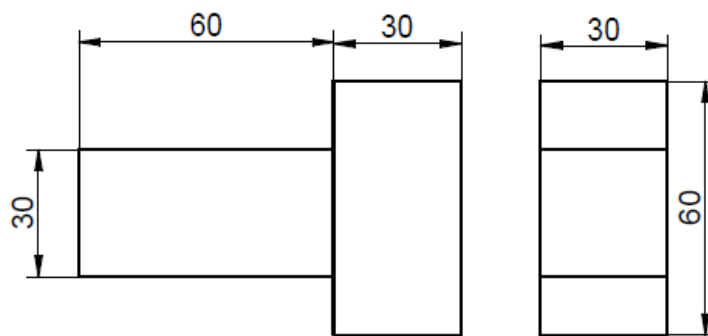


- 9) A square prism base side - 40 mm, height 50 mm is placed centrally on a rectangular slab sides - 100 mm X 60 mm and thickness 20 mm. Draw the isometric projection of the combination.

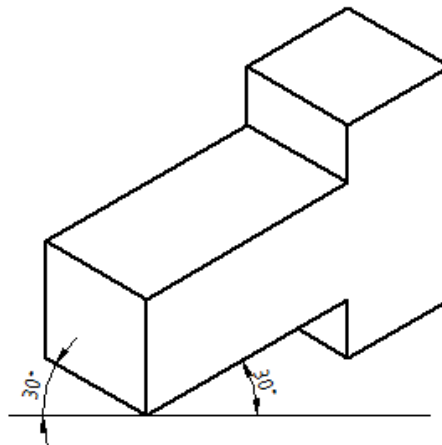
Solution



- 10) Following figures shows the front and side views of solid. Draw the isometric projection of the solid.

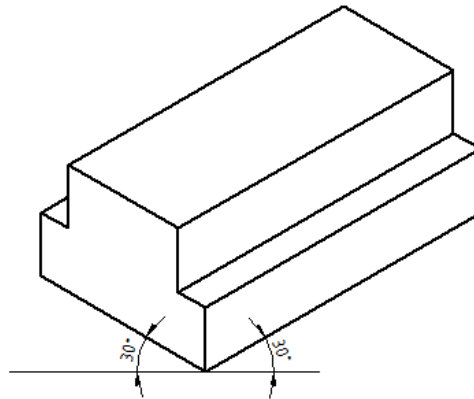


Solution



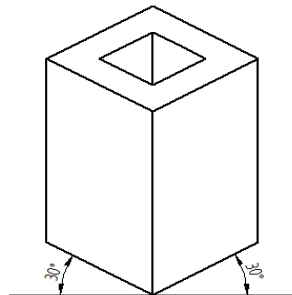
- 11) Two rectangular plates are placed centrally with dimensions (l x b x h) 100 mm X 60 mm X 20 mm and 100 mm X 40 mm X 20 mm such that longer edges are parallel. Draw the isometric projection of the combination.

Solution



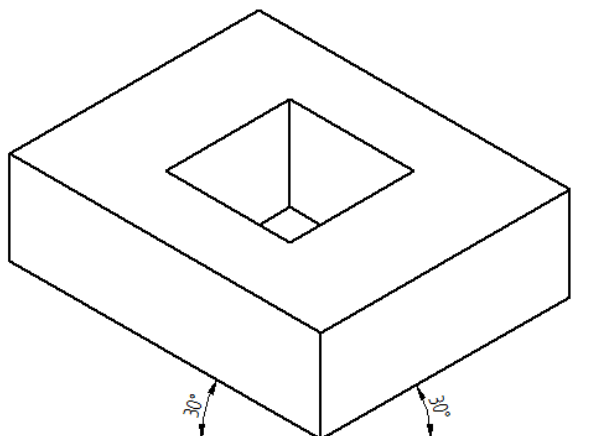
- 12) square prism side - 40 mm and height 70 mm has a full depth co-axial square hole side - 20 mm, such that edges of both the squares are parallel. Draw the isometric projection of the combination.

Solution



- 13) 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



*****ALL THE BEST*****