Teaching Aids Required for this Sheet
(The RA should bring them to the class)

- A pair of hinged square acrylic plates; this can be used to denote the quadrants.
- A square acrylic plate to denote auxiliary plane.
- The following shapes in wood or cardboard:
  - Cylinder, Cone, Cube, tetrahedron.
  - Prisms: Triangular, square, pentagonal, hexagonal
  - Pyramids: Square, pentagonal, hexagonal.

Note: This is a longer presentation. So the important slides are indicated at the bottom right corner with a yellow star as in this slide.

ME119:
Engineering Drawing & Graphics

7. Sections of Solids

Department of Mechanical Engineering
Indian Institute of Technology Bombay

Outline

- Sections of Prisms and Pyramids
- Sections of Cylinders
- Sections of Cones
- Sections of Spheres
- Sections of Combined Solids
- Conclusions

Sections of Solids

- We started with projections of points, upgraded to lines and planar features. We learnt to draw solid objects. Now we shall deal with sectioning the solids.
- While purpose here is to create sectional view here, in a later sheet on “Intersection of Surfaces”, we shall try to render the 3D intersection curves of the surfaces.
- Chapters 14 covers the details on Sections of Solids.
- Roughly work out all the problems given to you.

Note: For the sake of simplicity and uniformity, we shall use only 1st angle projection.

Sections the Solids

Need

(i) to visualize the sectioning curves: We started this course with conic sections. We shall study here other shapes too.

(ii) to understand and depict the interior hidden features: We have been already depicting hidden features by another way, i.e., as dashed lines. However, when the object is more complex and/or it has overlapping hidden features, the view becomes cluttered with intersecting hidden lines. So, in such complex case, we shall split the solid by a surface, remove one part of it and depict the other.

Sections the Solids

Sectioning plane & conventions

- The sectioning plane will be planar in this topic.
- The sectioning plane sometimes may be a collection of contiguous planes in order cover more hidden features in one view.
- Sectioned zone is shown in hatches and its sectioning plane shall be clearly mentioned with arrows showing the direction of the viewer or projection.
- Normally sectioning plane is parallel to the three principal planes. However, sectioning plane can be an aux. planes also.
- Sectioning is NOT limited to orthographic projections. It is applicable also to the pictorial views (isometric, perspective etc.).

Sections of Solids
Hints

- The solid object will be defined in space. Draw it accordingly in light lines initially. After sectioning is done, the remaining object only shall be shown in thick lines.
- The sectioning plane will be defined in space. Sometimes, it is specified indirectly.
- The viewing direction also will be specified in most cases; otherwise, assume a suitable direction. True shape of the section will be visible from this direction. You have to assume that the part of the solid between the viewer and the sectioning plane is removed.
- The exposed interior shall be highlighted by hatching.

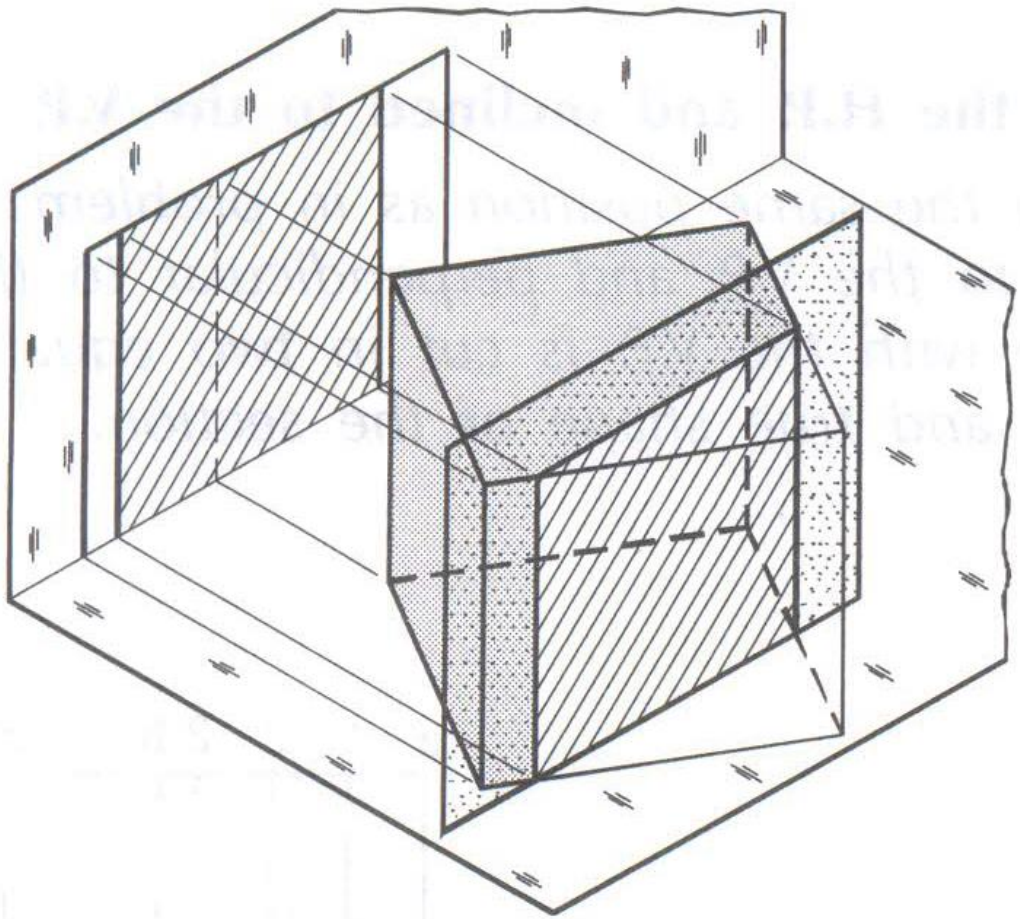
Sections of Solids

Example-1 (Solved Pb. 14-1, pp. 314)

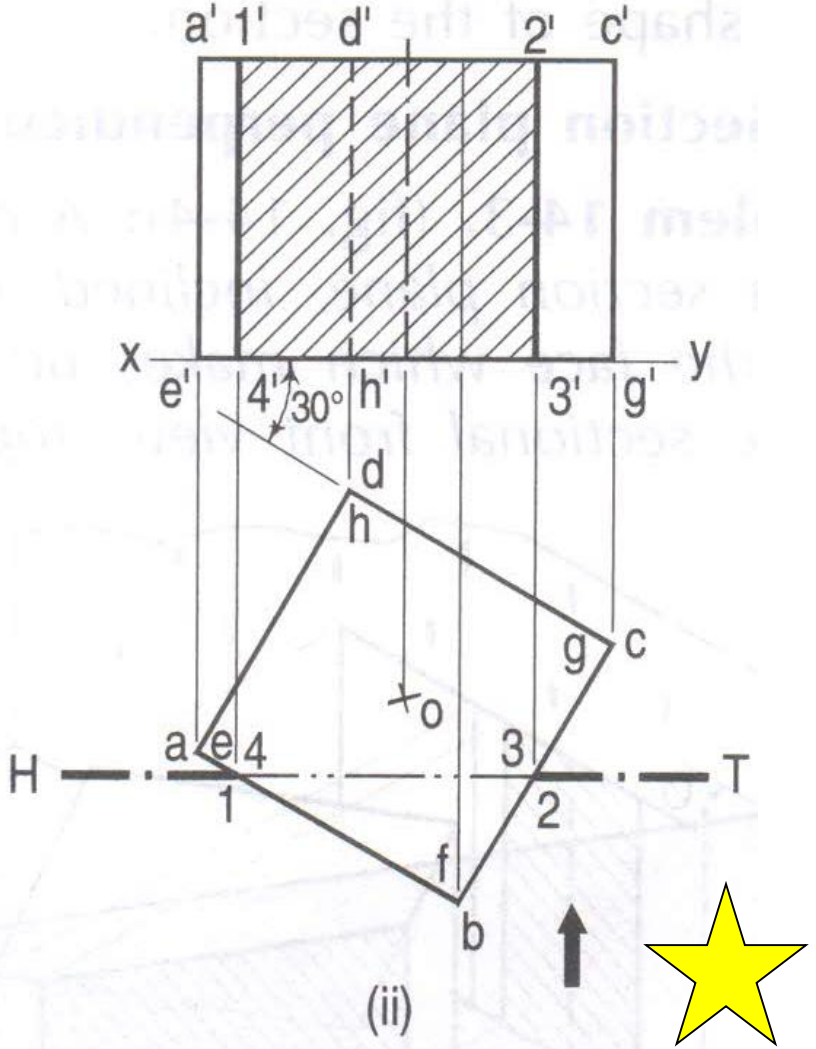
A cube of 35 mm long edges is resting on the H.P. on one of its faces with a vertical face inclined at 30° to the V.P. It is cut by a section plane parallel to the V.P. and 9 mm away from the axis and further away from the V.P. Draw its sectional front view and its top view.

Sections of Solids

Example-1 (Solved Pb. 14-1, pp. 314) …



(i)



(ii)

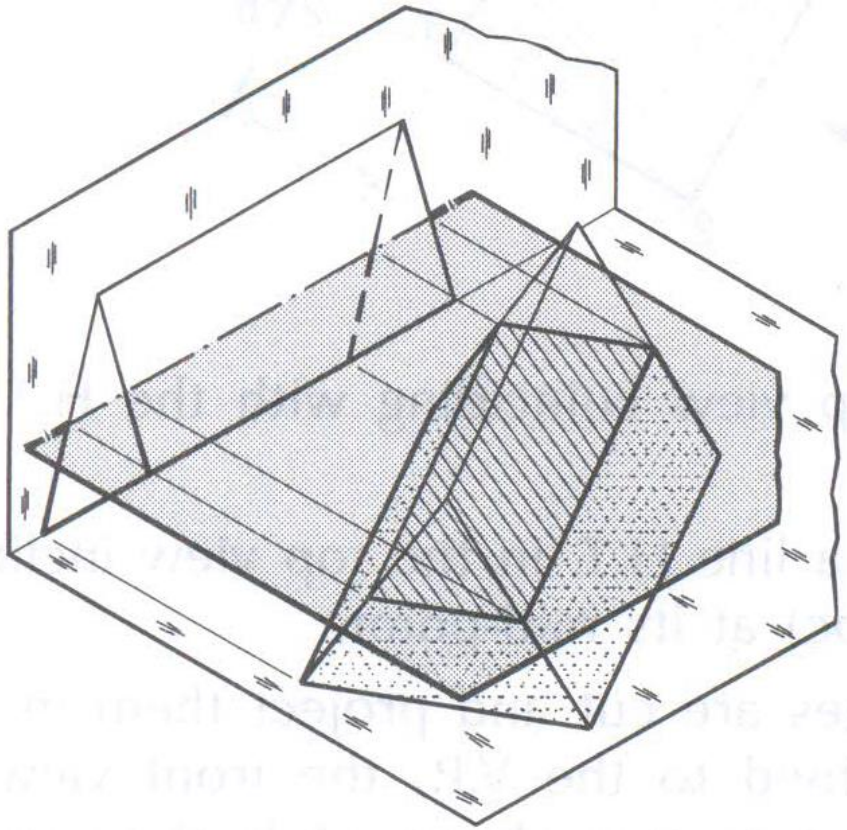
Sections of Solids

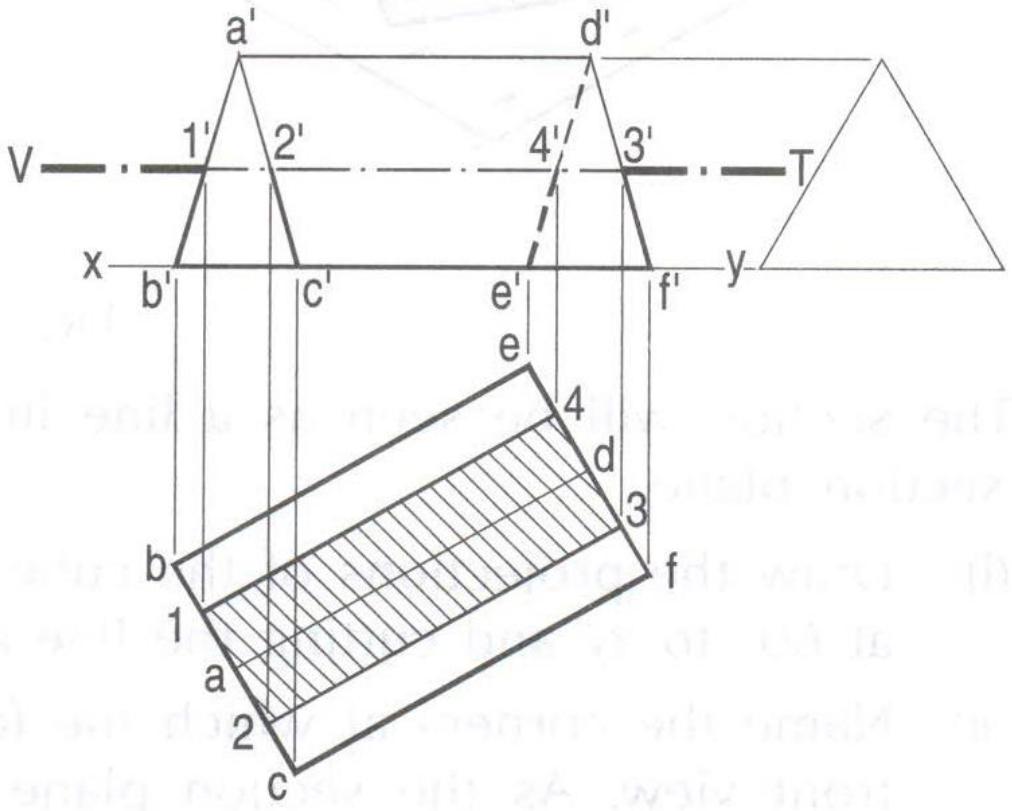
Example-2 (Solved Pb. 14-2, pp. 315)

A triangular prism, base 30 mm and axis 50 mm long, is lying on the H.P. on one of its rectangular face with its axis inclined at 30° to the V.P. It is cut by a horizontal section plane, at a distance of 12 mm above the ground. Draw its front view and sectional top view.

Sections of Solids

Example-2 (Solved Pb. 14-2, pp. 315) …





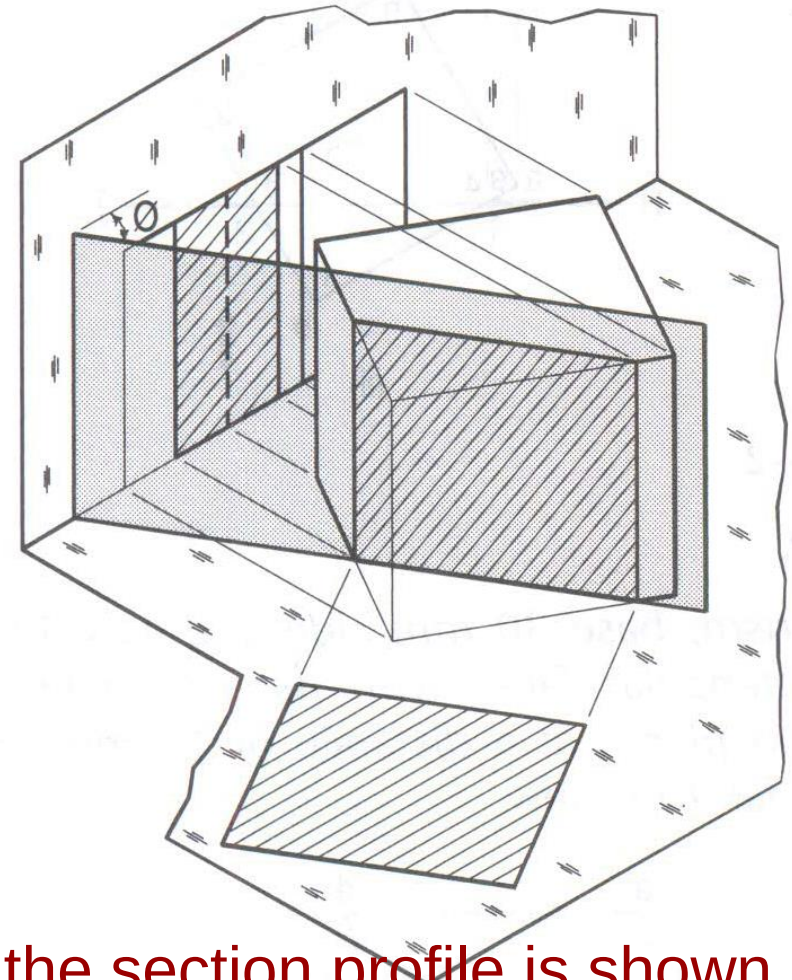
Sections of Solids

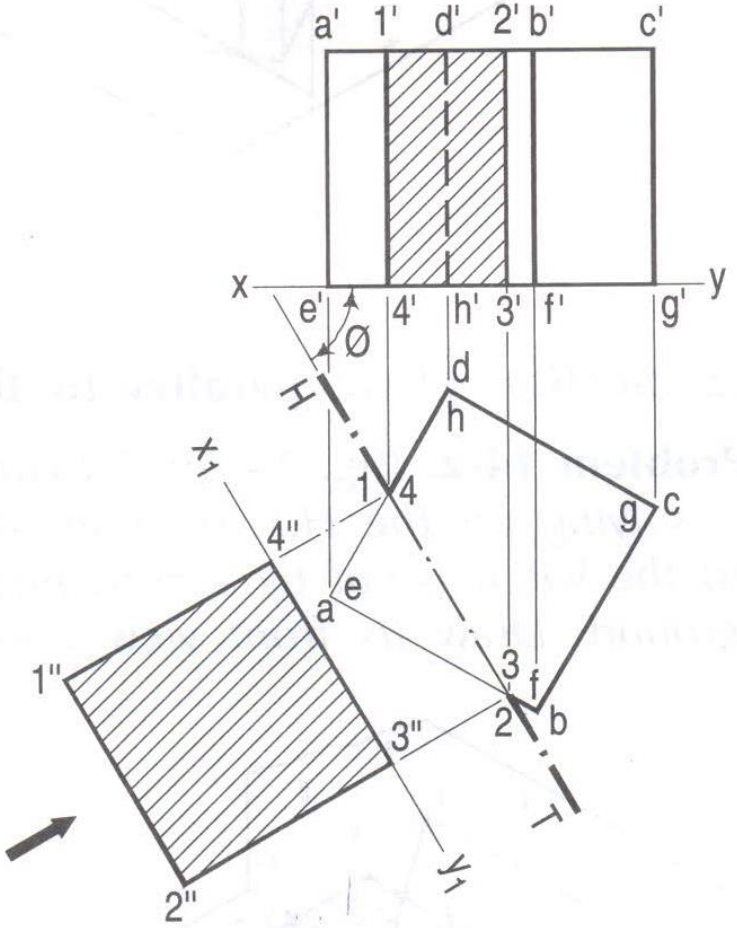
Example-3 (Solved Pb. 14-3, pp. 316)

A cube of 35 mm long edges is resting on the H.P. on one of its faces with a vertical face inclined at 30° to the V.P. It is cut by a section plane, inclined at 60° to the V.P. and perpendicular to the H.P., so that the face which makes 60° angle with the V.P. is cut into equal halves. Draw the sectional front view, top view and true shape of the section.

Sections of Solids

Example-3 (Solved Pb. 14-3, pp. 316) …





Only the section profile is shown in the aux. view. Show all contours.

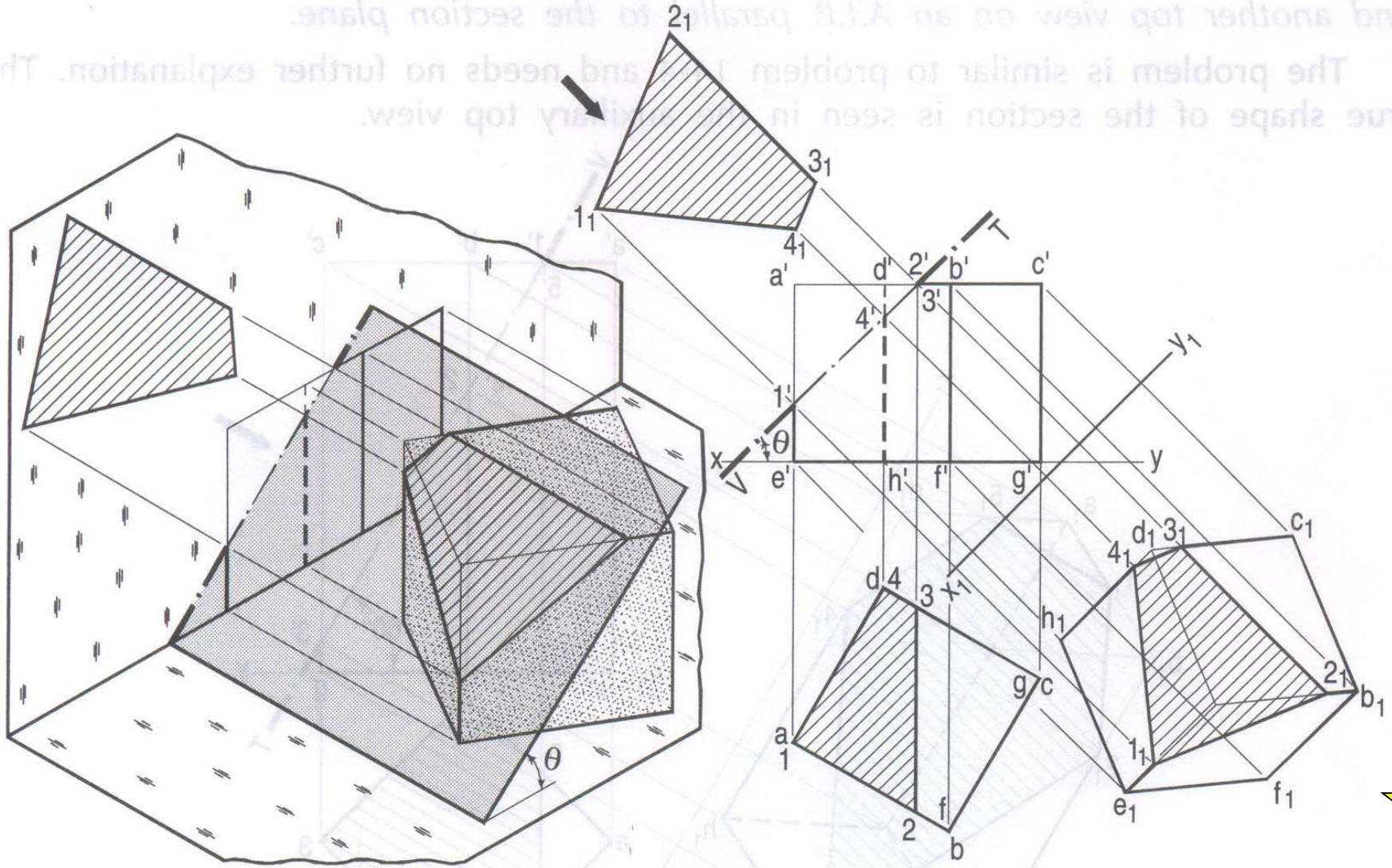
Sections of Solids

Example-4 (Solved Pb. 14-4, pp. 317)

A cube of 35 mm long edges is resting on the H.P. on one of its faces with a vertical face inclined at 30° to the V.P. It is cut by a section plane perpendicular to the V.P., inclined at 45° to the H.P. and passing through the top end of the axis. (i) Draw its front view, sectional top view and true shape of the section. (ii) Project another top view on an auxiliary plane, parallel to the section plane.

Sections of Solids

Example-4 (Solved Pb. 14-4, pp. 317) …



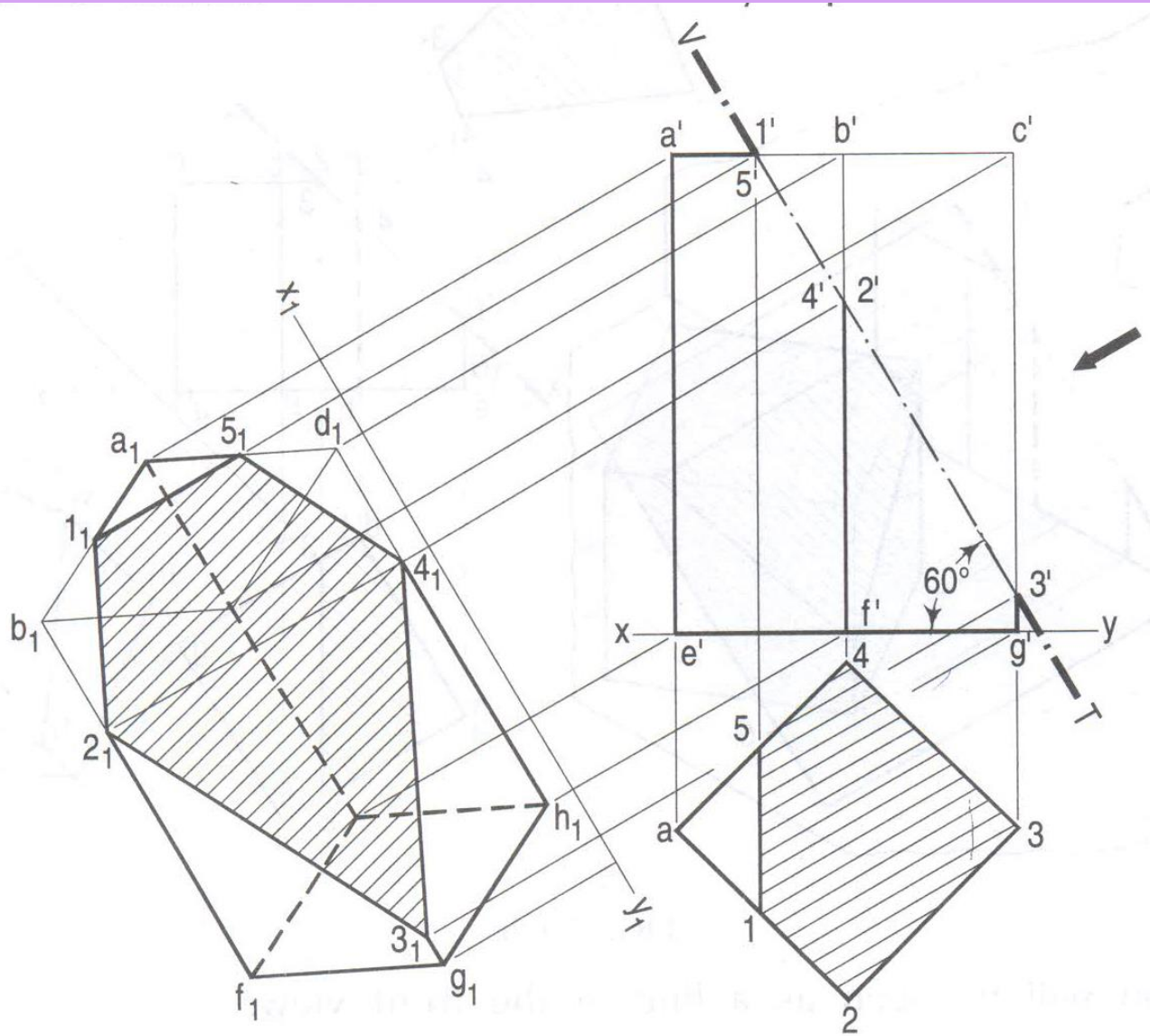
Sections of Solids

Example-5 (Solved Pb. 14-5, pp. 318)

A square prism, base 40mm side, axis 80 mm long, has its base on the H.P. and its faces equally inclined to the V.P. It is cut by a plane, perpendicular to the V.P., inclined at 60° to the H.P. and passing through a point on the axis, 55 mm above H.P. Draw its front view, sectional top view and another top view on an A.I.P. parallel to the section plane.

Sections of Solids

Example-5 (Solved Pb. 14-5, pp. 318) …



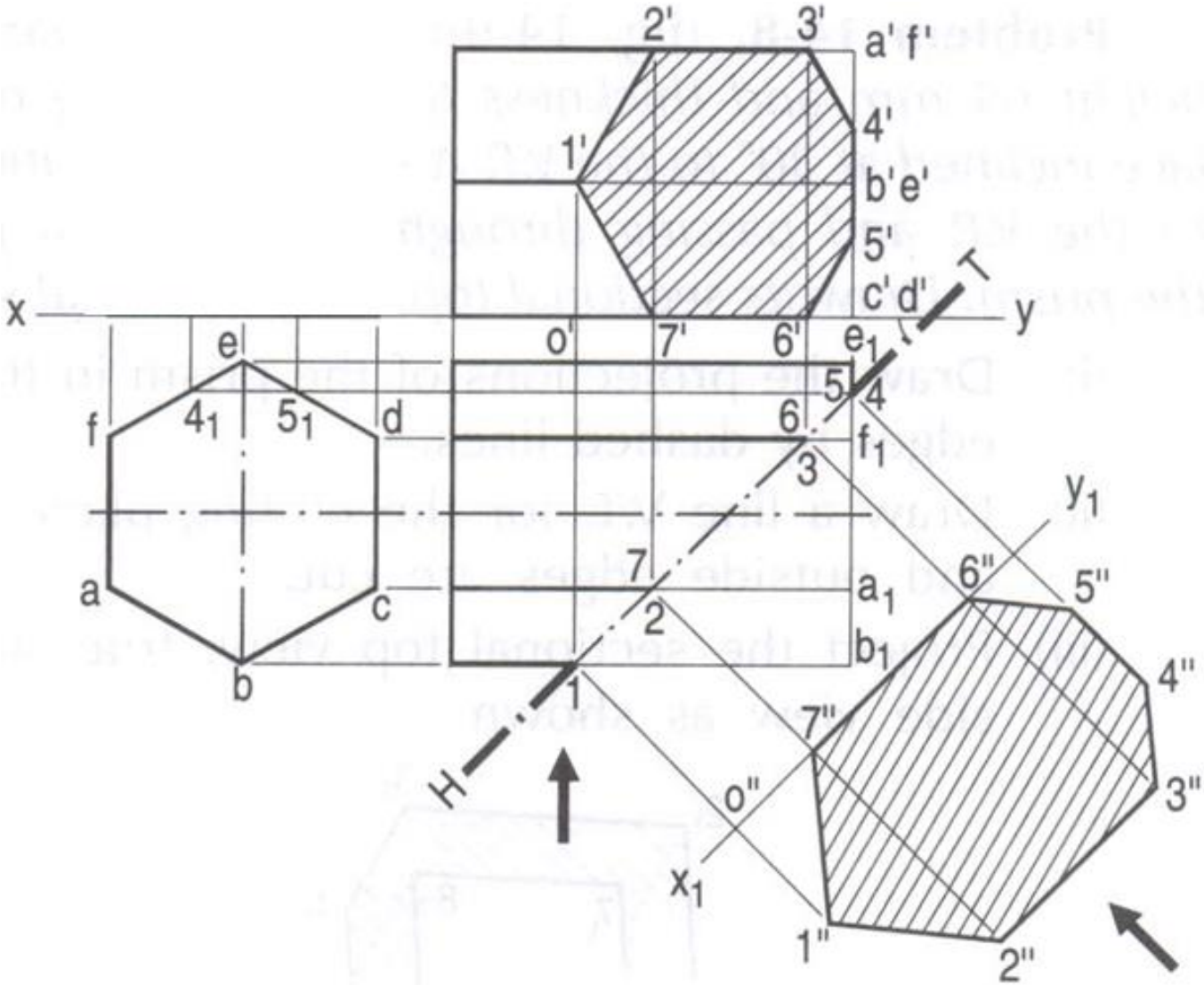
Sections of Solids

Example-6 (Solved Pb. 14-6, pp. 318)

A hexagonal prism has a face on the H.P. and the axis parallel to the V.P. It is cut by a vertical section plane, the H.T of which makes an angle of 45° with xy and which cuts the axis at a point 20 mm from one of its ends. Draw its sectional front view and true shape of the section. Side of base 25 mm long; height 65 mm.

Sections of Solids

Example-6 (Solved Pb. 14-6, pp. 318) …



Sections of Solids

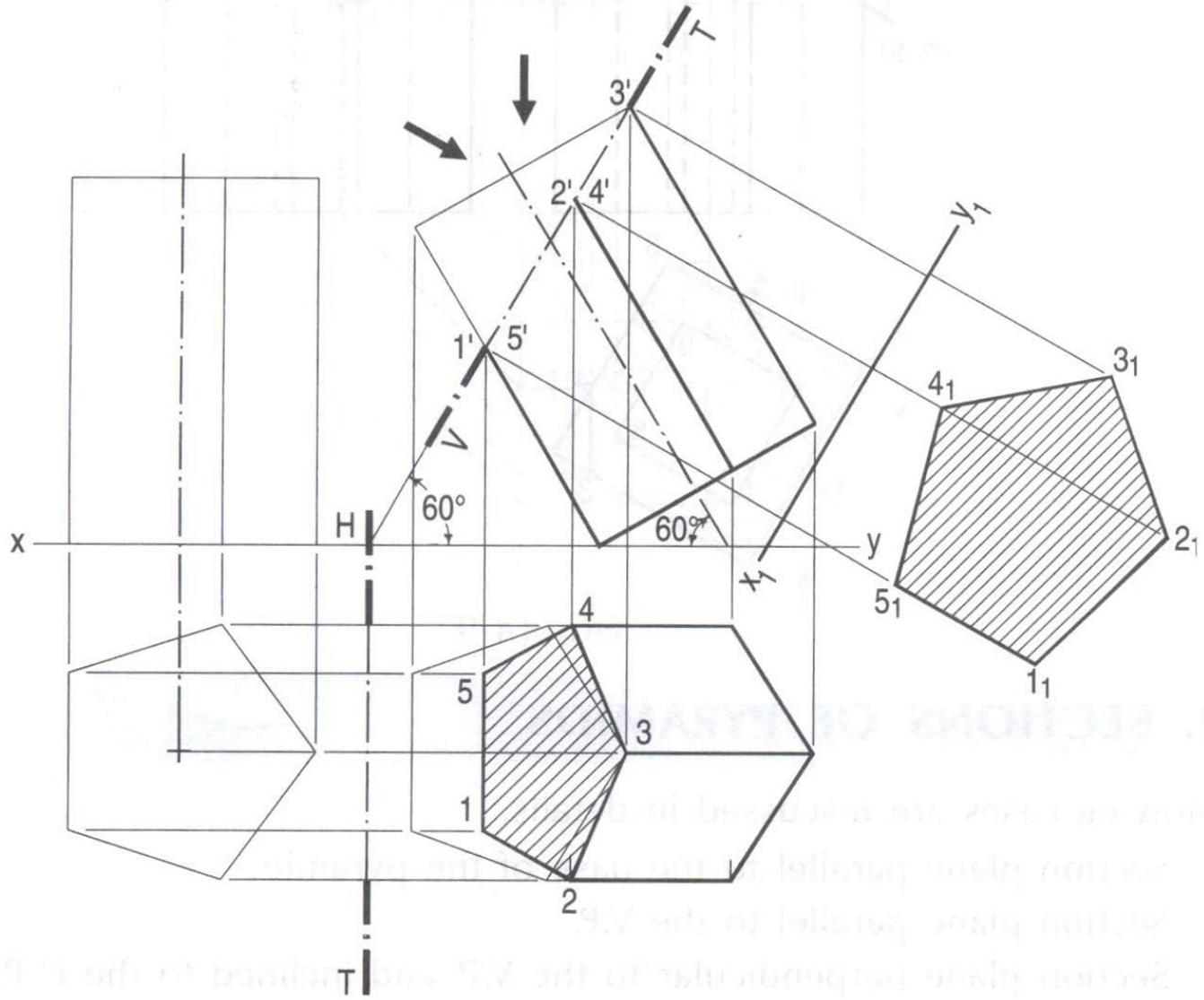
Example-7 (Solved Pb. 14-7, pp. 319)

A pentagonal prism, base 28 mm side and height 65 mm has an edge of its base on the H.P. and axis parallel to the V.P. and inclined at 60° to the H.P. A section plane, having its H.T. perpendicular to xy, and V.T. inclined at 60° to the xy and passing through the highest corner, cuts the prism. Draw the sectional top view and true shape of the section.

Note: “having H.T. perpendicular to *xy*” is equivalent to “having sectioning plane perpendicular to V.P.”

Sections of Solids

Example-7 (Solved Pb. 14-7, pp. 319) …



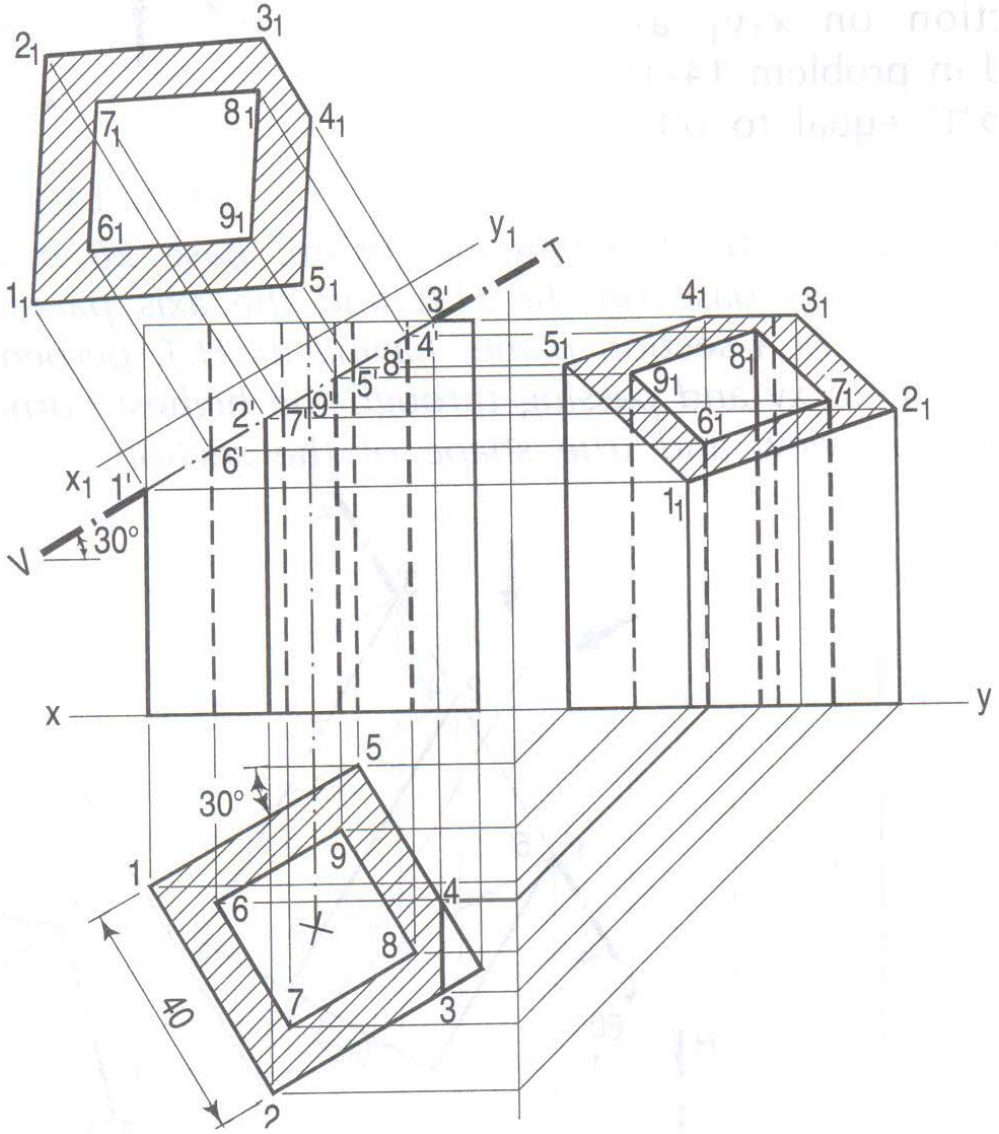
Sections of Solids

Example-8 (Solved Pb. 14-8, pp. 320)

A hollow square prism, base 40 mm side (outside), height 65 mm and thickness 8mm is resting on its base on the H.P. with a vertical face inclined at 30° to the V.P. A section plane, inclined at 30° to the H.P., perpendicular to the V.P. and passing through the axis at a point 12 mm from its top end cuts the prism. Draw its sectional top view, sectional side view and true shape of the section.

Sections of Solids

Example-8 (Solved Pb. 14-8, pp. 320) …



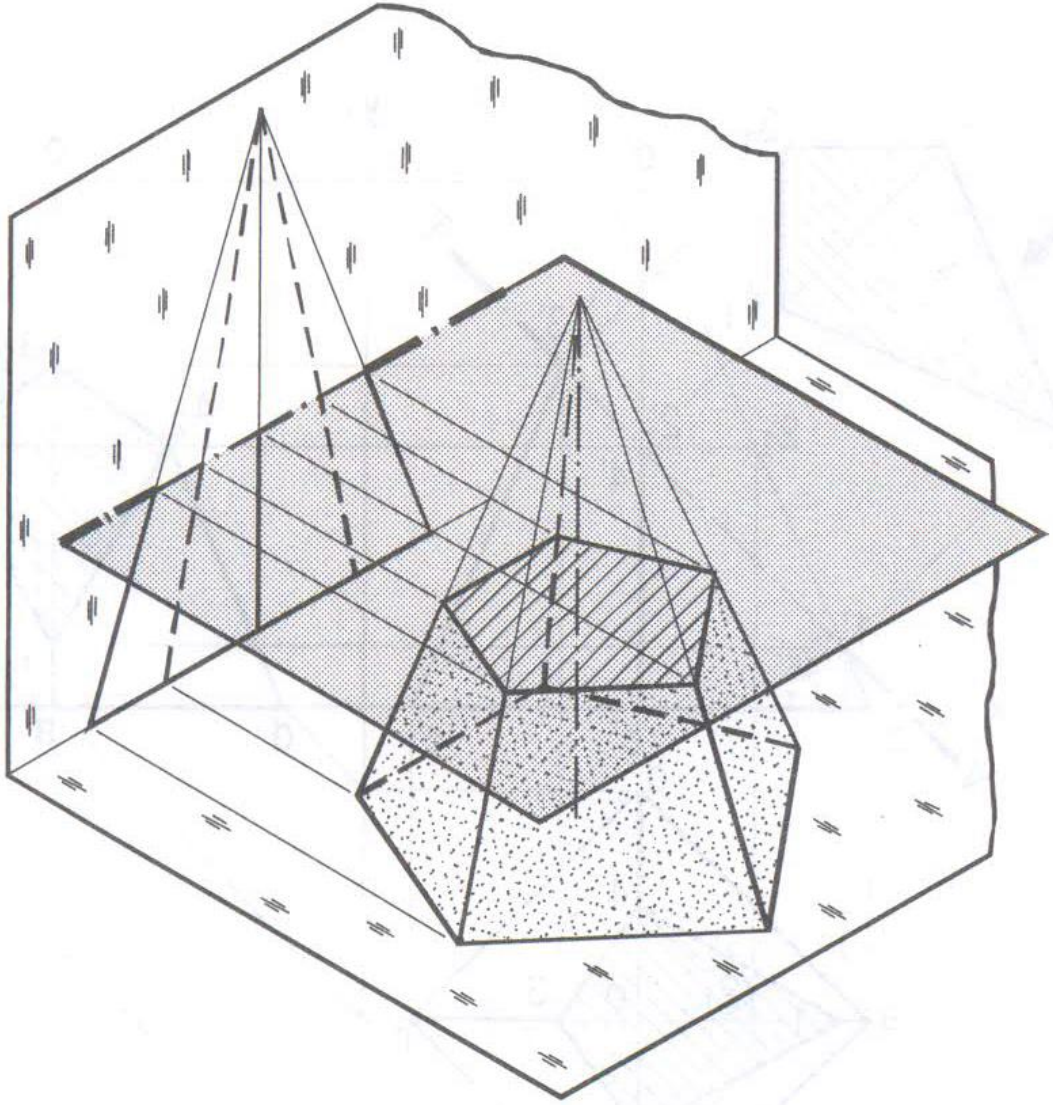
Sections of Solids

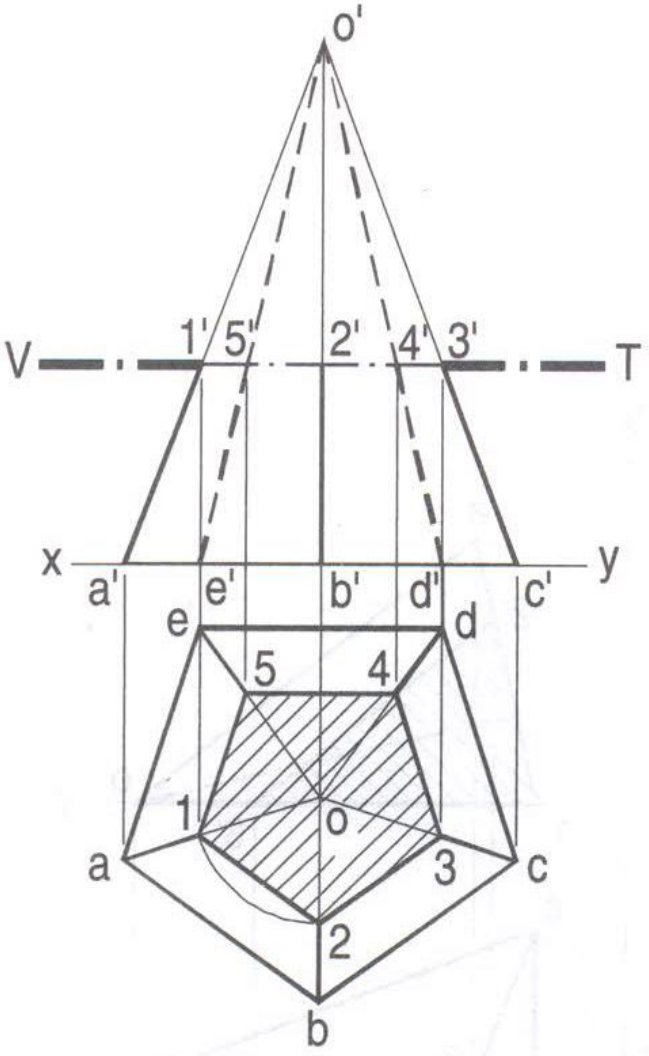
Example-9 (Solved Pb. 14-9, pp. 321)

A pentagonal pyramid, base 30 mm side and axis 65 mm long, has its base horizontal and an edge of the base parallel to the V.P. A horizontal section plane cuts it at a distance of 25 mm above the base. Draw its front view and sectional top view.

Sections of Solids

Example-9 (Solved Pb. 14-9, pp. 321) …





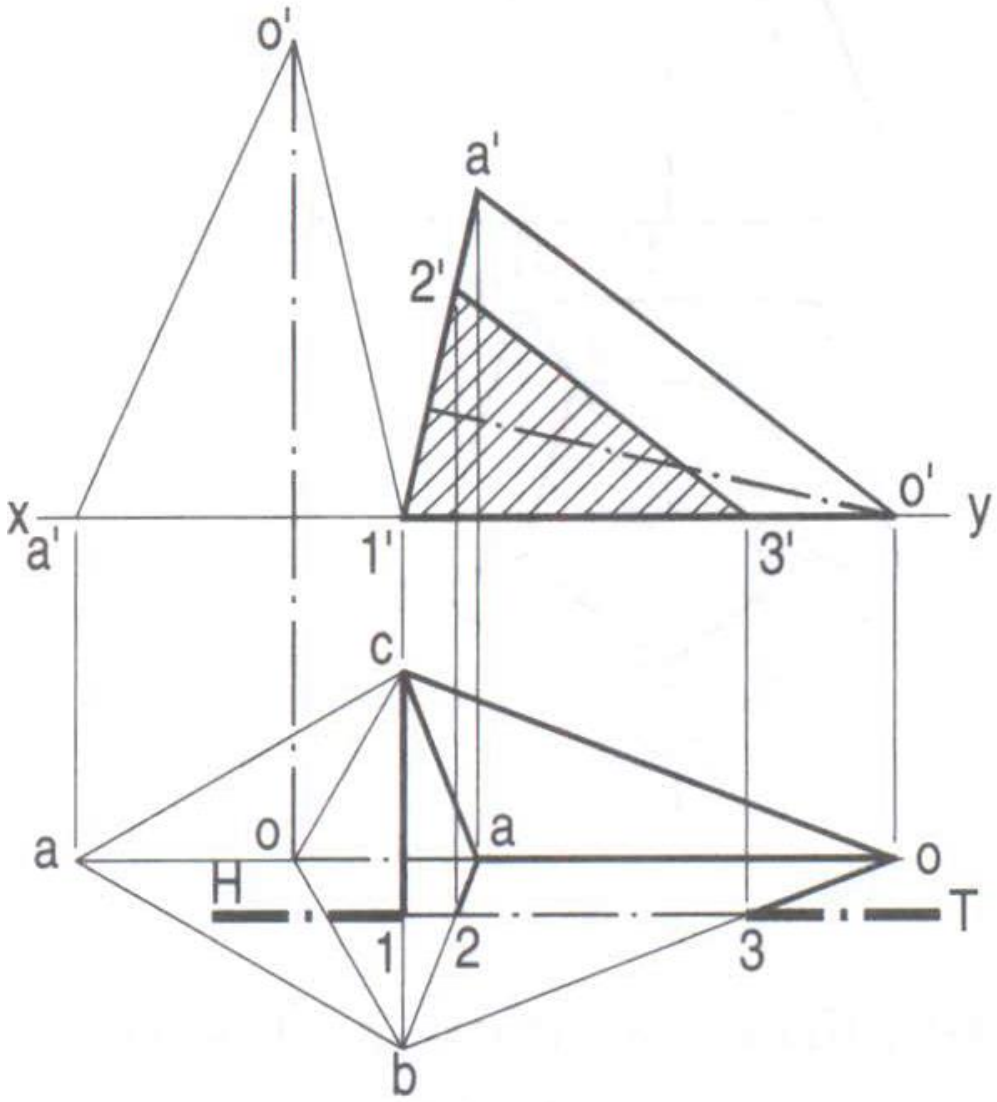
Sections of Solids

Example-10 (Solved Pb. 14-10, pp. 321)

A triangular pyramid, having a base 40 mm side and axis 50 mm long, is lying on the H.P. on one of its faces, with the axis parallel to the V.P. A section plane, parallel to the V.P. cuts the pyramid at a distance of 6 mm from the axis. Draw its sectional front view and its top view.

Sections of Solids

Example-10 (Solved Pb. 14-10, pp. 321) …



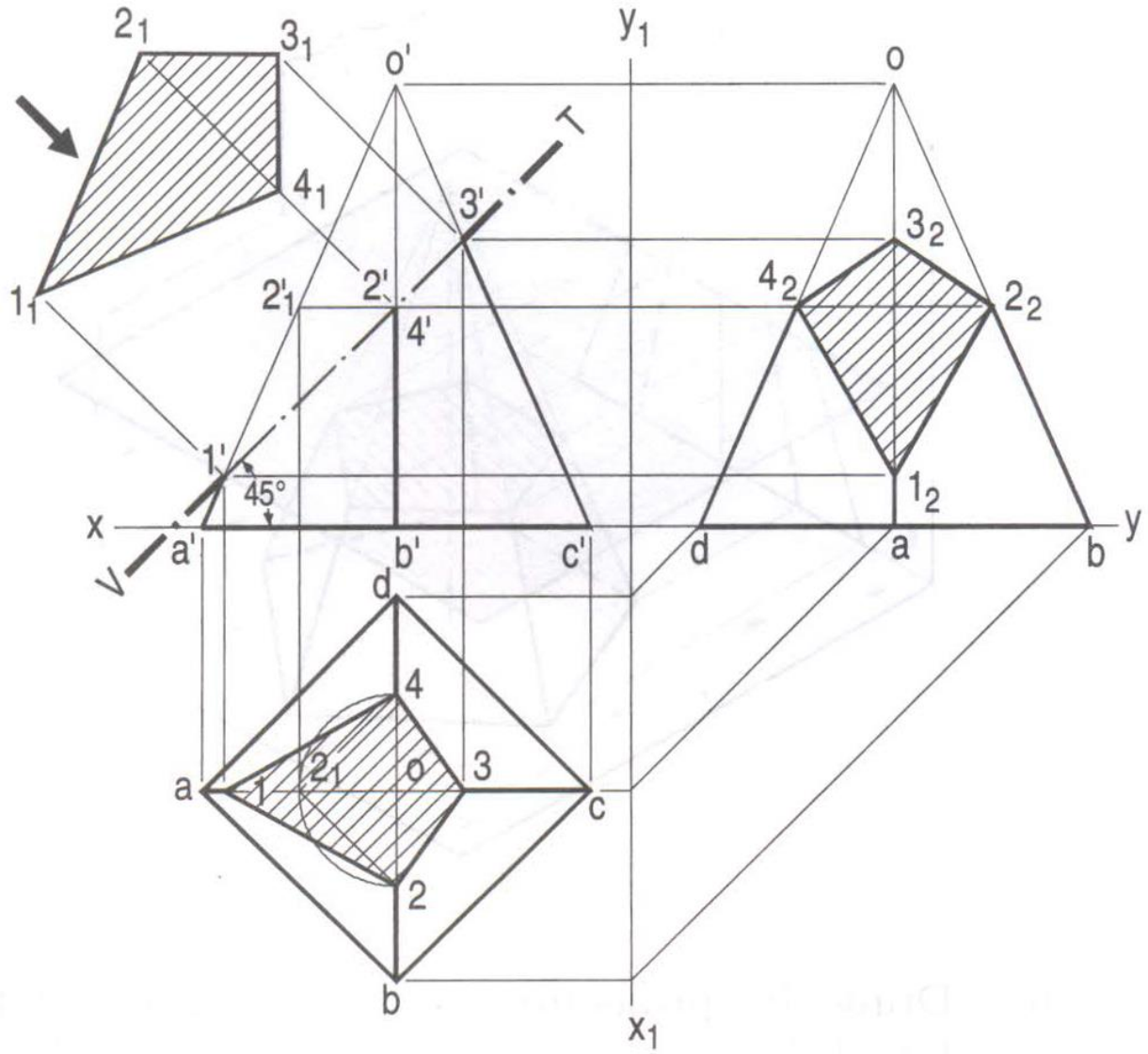
Sections of Solids

Example-11 (Solved Pb. 14-11, pp. 322)

A square pyramid, base 40 mm side and axis 65 mm long, has its base on the HP and all the edges of the base equally inclined to the VP. It is cut by a section plane, perpendicular to the VP. Inclined at 45° to the HP and bisecting the axis. Draw its sectional top view, sectional side view and true shape of the section.

Sections of Solids

Example-11 (Solved Pb. 14-11, pp. 322) …



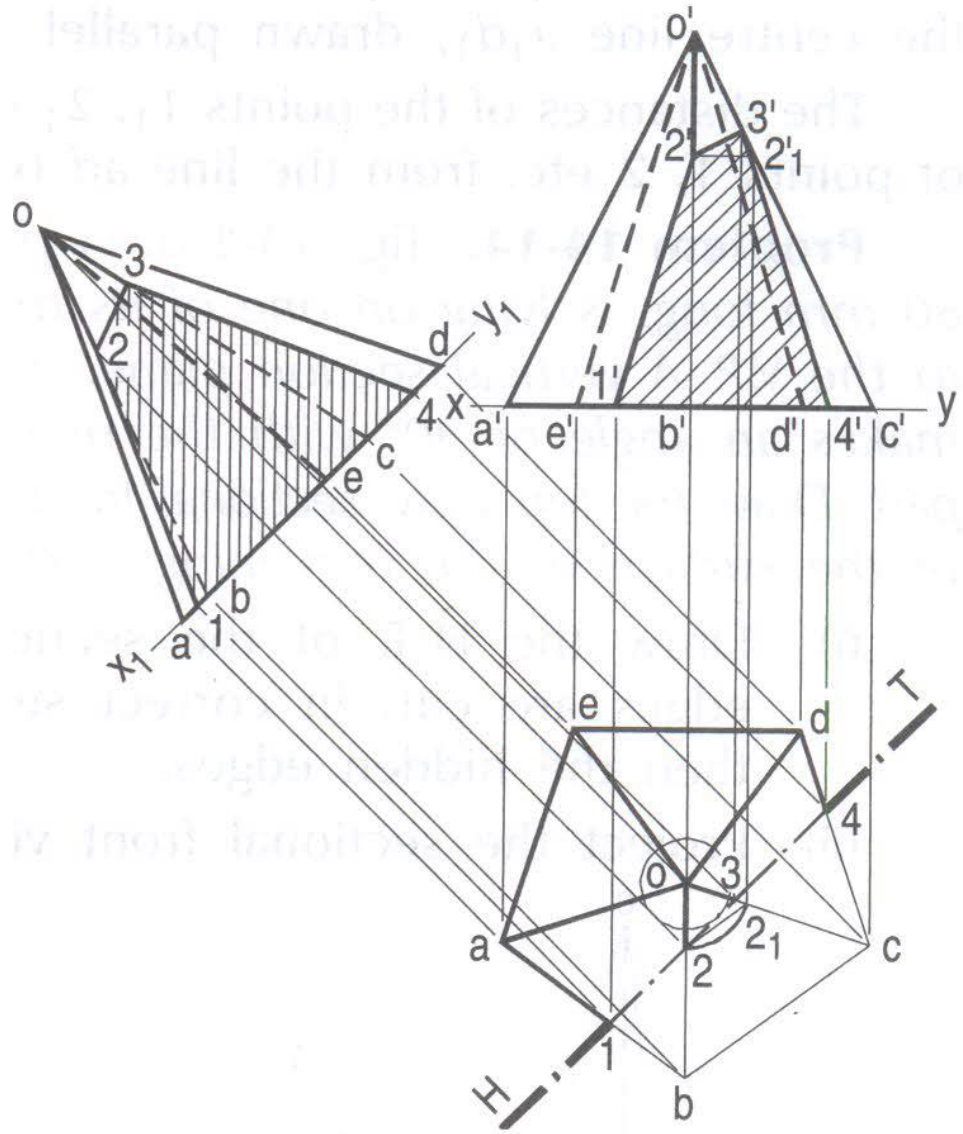
Sections of Solids

Example-12 (Solved Pb. 14-12, pp. 323)

A pentagonal pyramid has its base on the HP and the edge of the base nearer the VP, Parallel to it. A vertical sectional plane, inclined at 45° to the VP, cuts the pyramid at a distance of 6 mm from the axis. Draw the top view, Sectional front view and the auxiliary front view on an AVP parallel to the sectional plane. Base of the pyramid 30 mm side; axis 50 mm long.

Sections of Solids

Example-12 (Solved Pb. 14-12, pp. 323) …



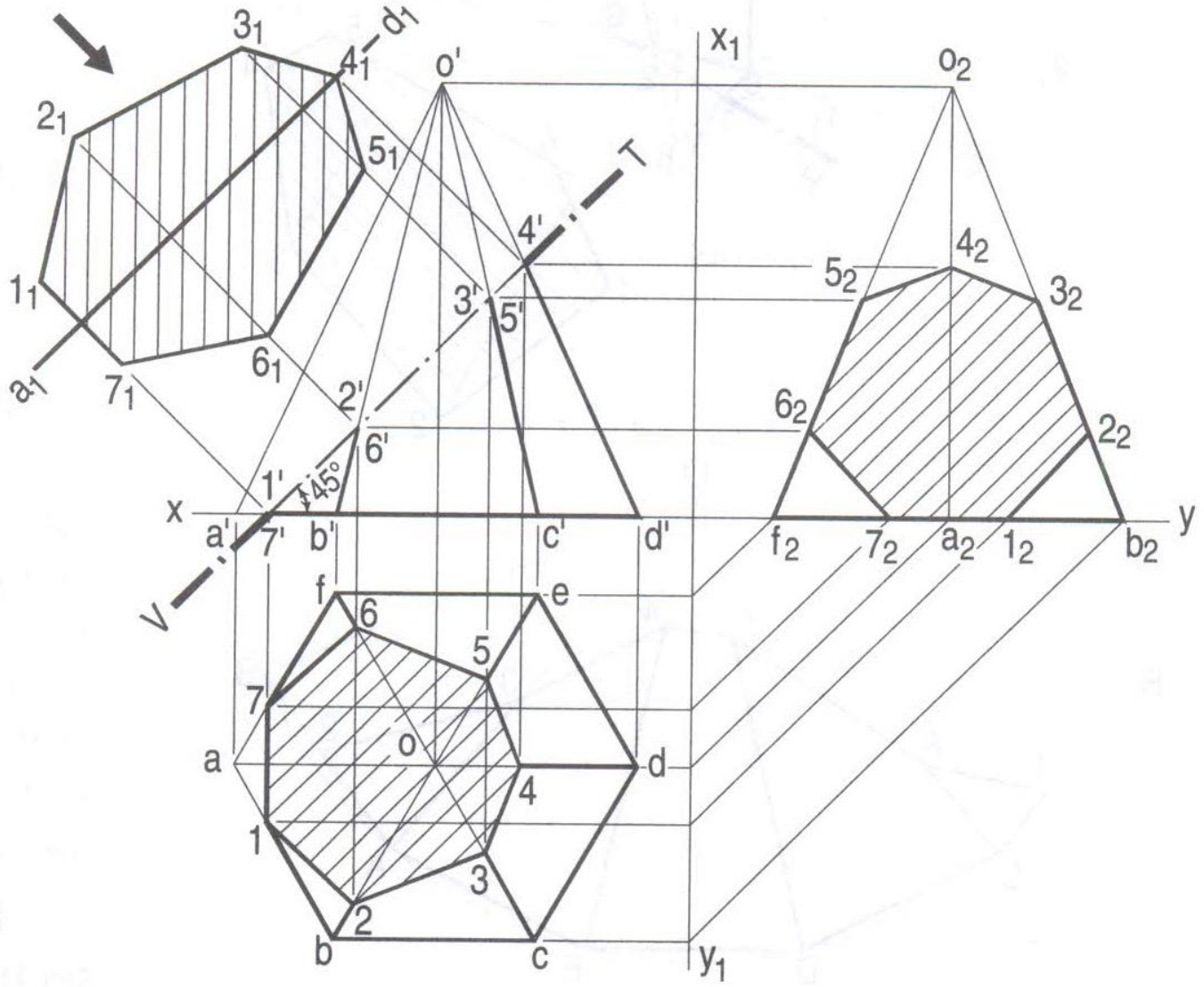
Sections of Solids

Example-13 (Solved Pb. 14-13, pp. 323)

A hexagonal pyramid base 30 mm side and axis 65 mm long, is resting on its base on the HP with two edges parallel to the VP. It is cut by a section plane, perpendicular to the VP inclined at 45° to the HP and intersecting the axis at a point 25 mm above the base. Draw the front view, sectional top view, sectional side view and true shape of the section.

Sections of Solids

Example-13 (Solved Pb. 14-13, pp. 323) …



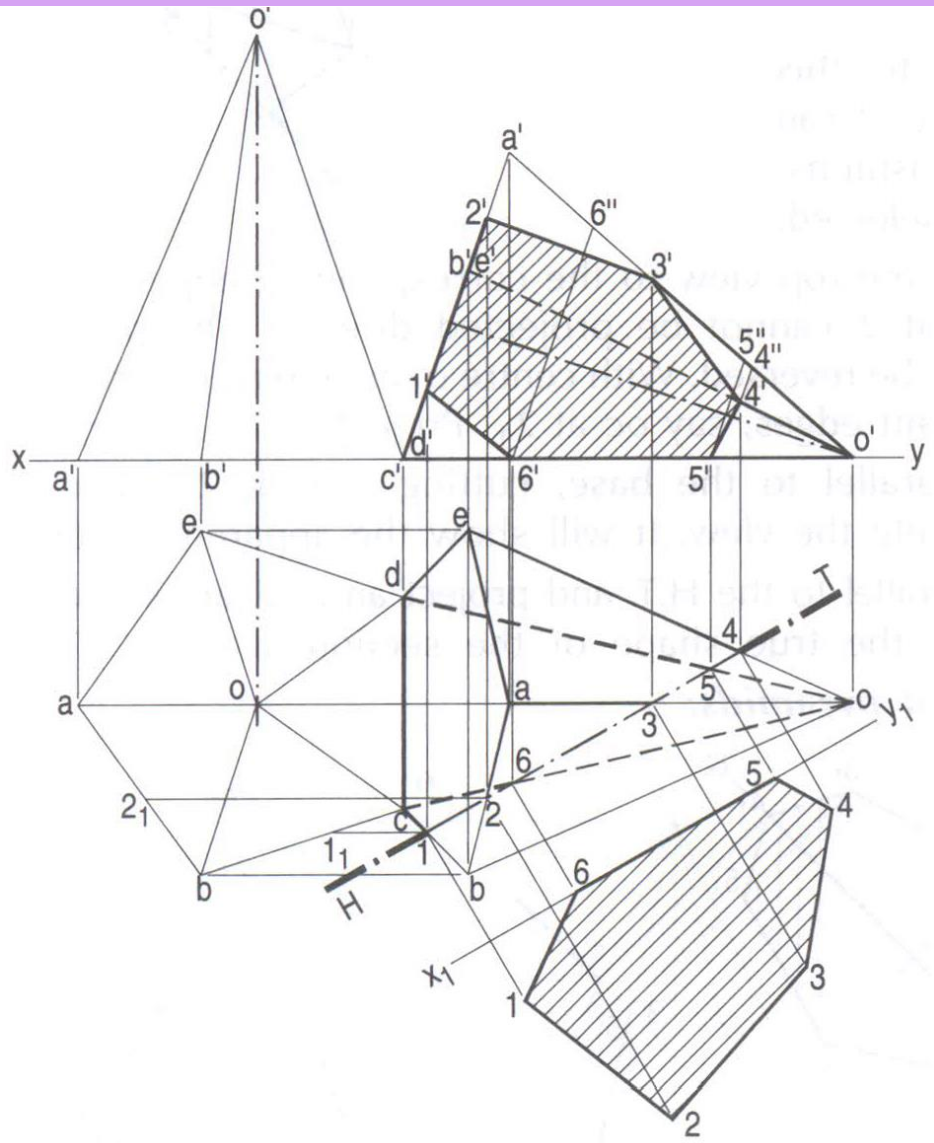
Sections of Solids

Example-14 (Solved Pb. 14-14, pp. 324)

A pentagonal pyramid, base 30 mm side and axis 60 mm long, is lying on one of its triangular faces on the HP with the axis parallel to the VP. A vertical section plane, whose HT bisects the top view of the axis and makes an angle of 30° with the reference line, cuts the pyramid, removing its top of the surface of the remaining portion of the pyramid.

Sections of Solids

Example-14 (Solved Pb. 14-14, pp. 324) …



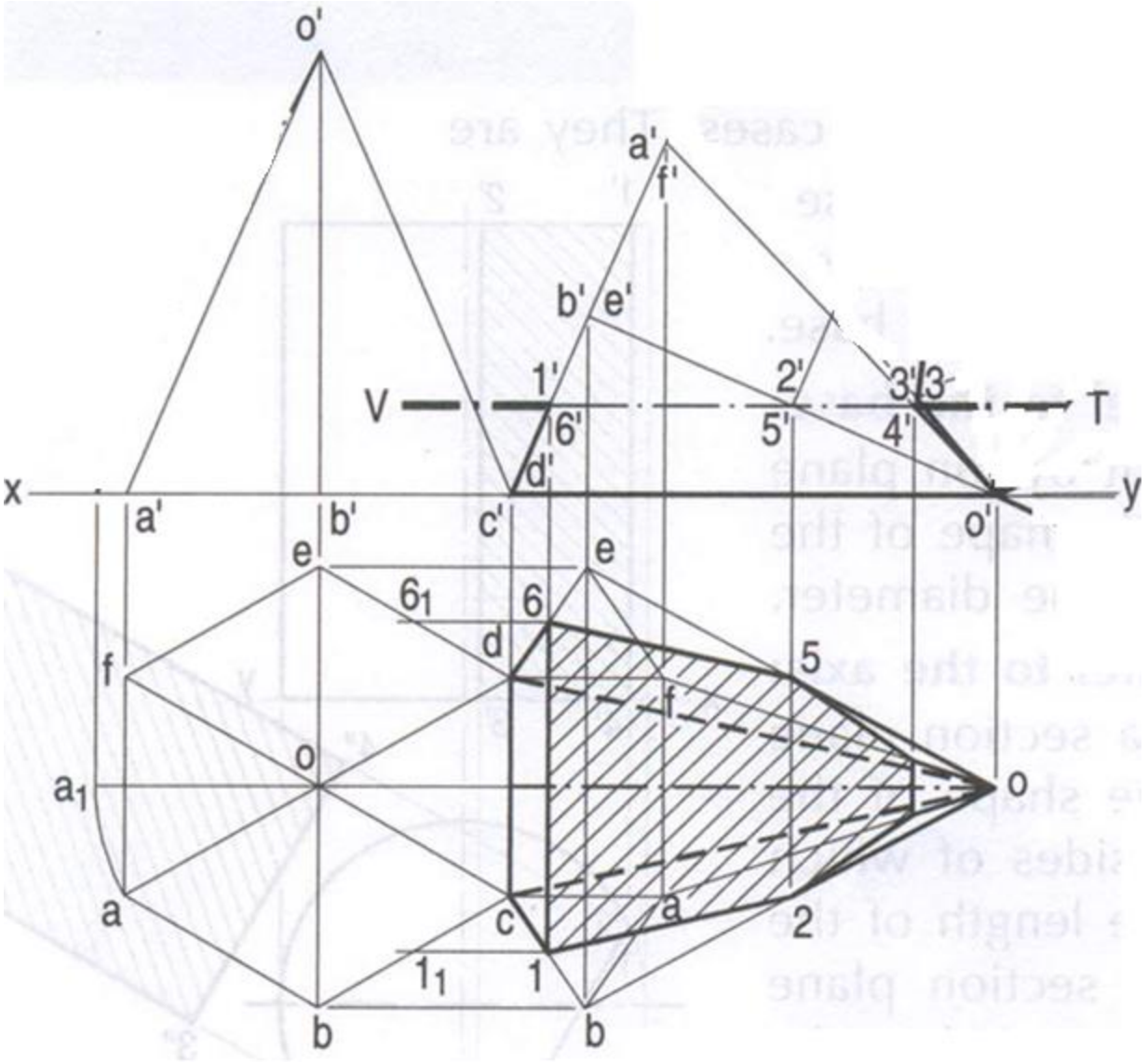
Sections of Solids

Example-15 (Solved Pb. 14-15, pp. 324)

A hexagonal pyramid, base 30 mm side and axis 60 mm long, has a triangular face on the HP and the axis parallel to the VP. It is cut by a horizontal section plane which bisects the axis. Draw the front view and sectional top view ~~and develop the surface of the cut-pyramid~~.

Sections of Solids

Example-15 (Solved Pb. 14-15, pp. 324) …



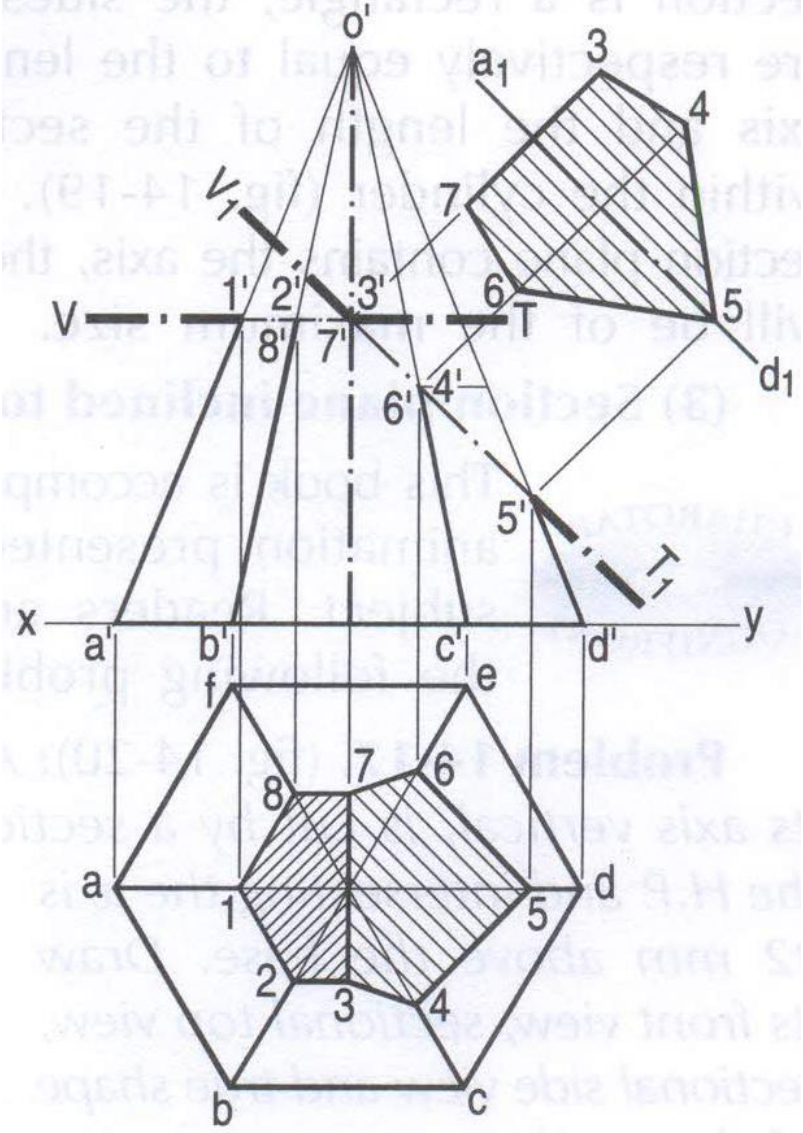
Sections of Solids

Example-16 (Solved Pb. 14-16, pp. 325)

A hexagonal pyramid, base 30 mm side and axis 75 mm long, resting on its base on the HP with two of its edges parallel to the VP is cut by two section plane, both perpendicular to the VP. The horizontal section plane cuts the axis at a point 35 mm from the apex. The other plane which makes an angle of 45° with the HP also intersects the axis at the same point. Draw the front view, sectional top view, true shape of the section ~~and development of the surface of the remaining part of the pyramid~~.

Sections of Solids

Example-16 (Solved Pb. 14-16, pp. 325) …



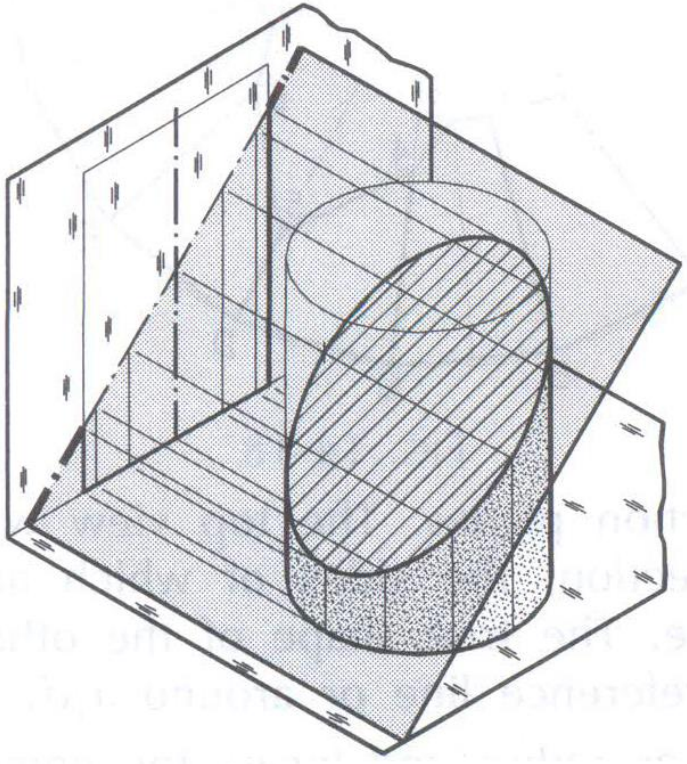
Sections of Solids

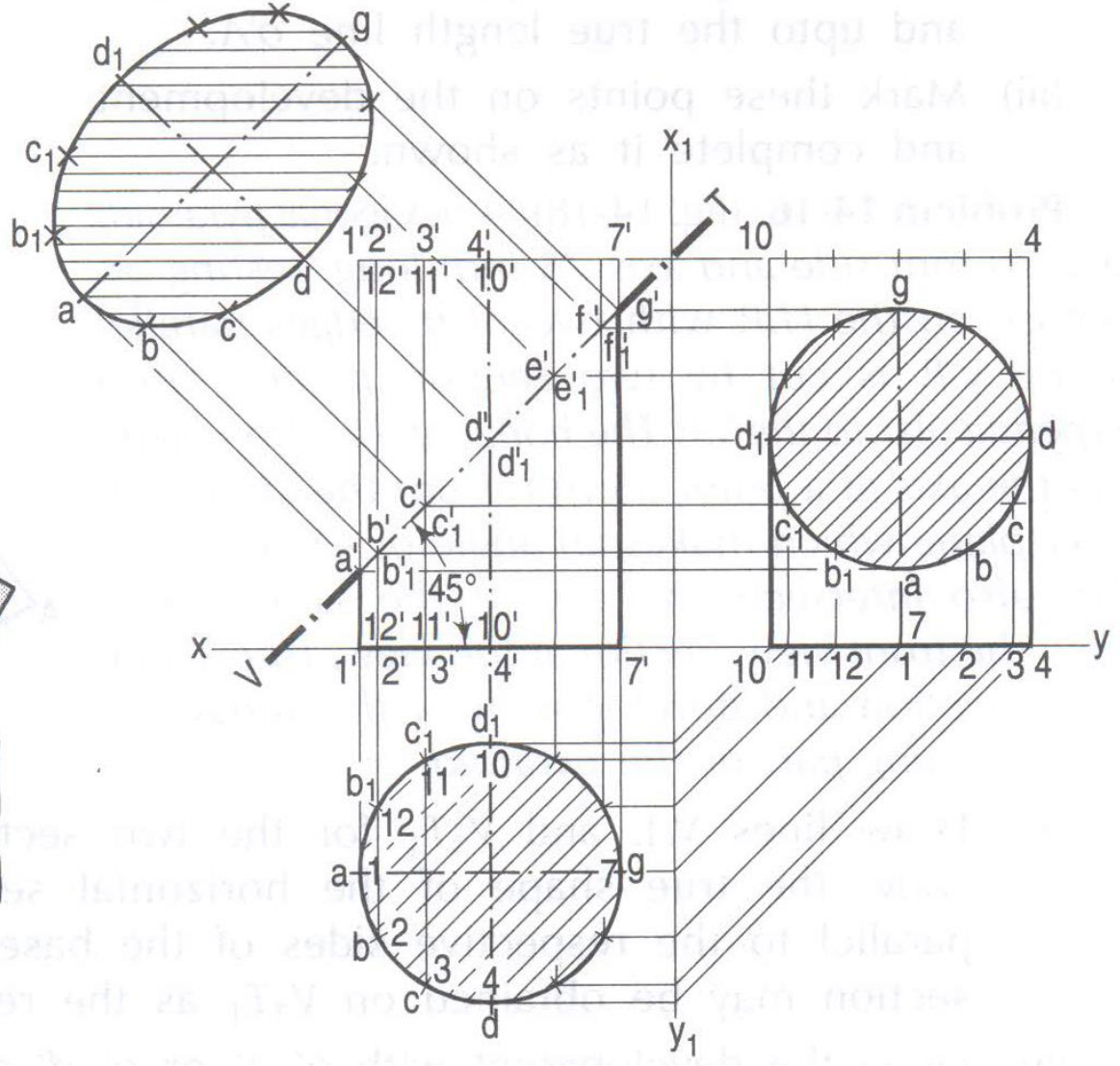
Example-17 (Solved Pb. 14-17, pp. 326)

A cylinder of 40 mm diameter, 60 mm height and having its axis vertical, is cut by a section plane, perpendicular to the VP, inclined at 45° to the HP and intersecting the axis 32 mm above the base. Draw its front view, sectional top view, sectional side view and true shape of the section.

Sections of Solids

Example-17 (Solved Pb. 14-17, pp. 326) …





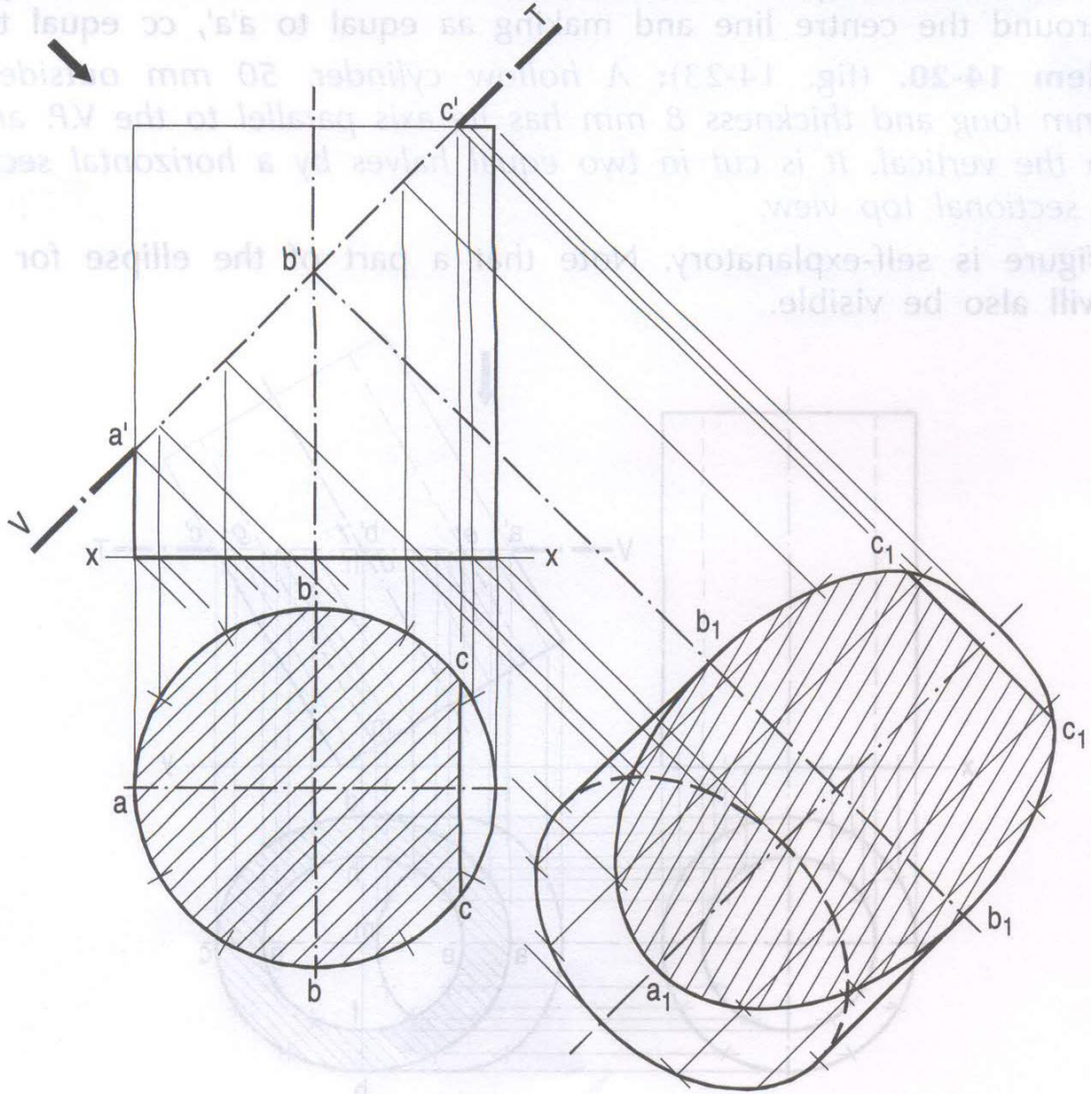
Sections of Solids

Example-18 (Solved Pb. 14-18, pp. 327)

A cylinder 50 mm diameter and 60 mm long, is resting on its base on the ground. It is cut by a section plane perpendicular to VP, the VT of which cuts the axis at a point 40 mm from the base and makes the angle of 45° with the HP. Draw its front view, sectional top view and another sectional top view on an AIP parallel to the section plane.

Sections of Solids

Example-18 (Solved Pb. 14-18, pp. 327) …



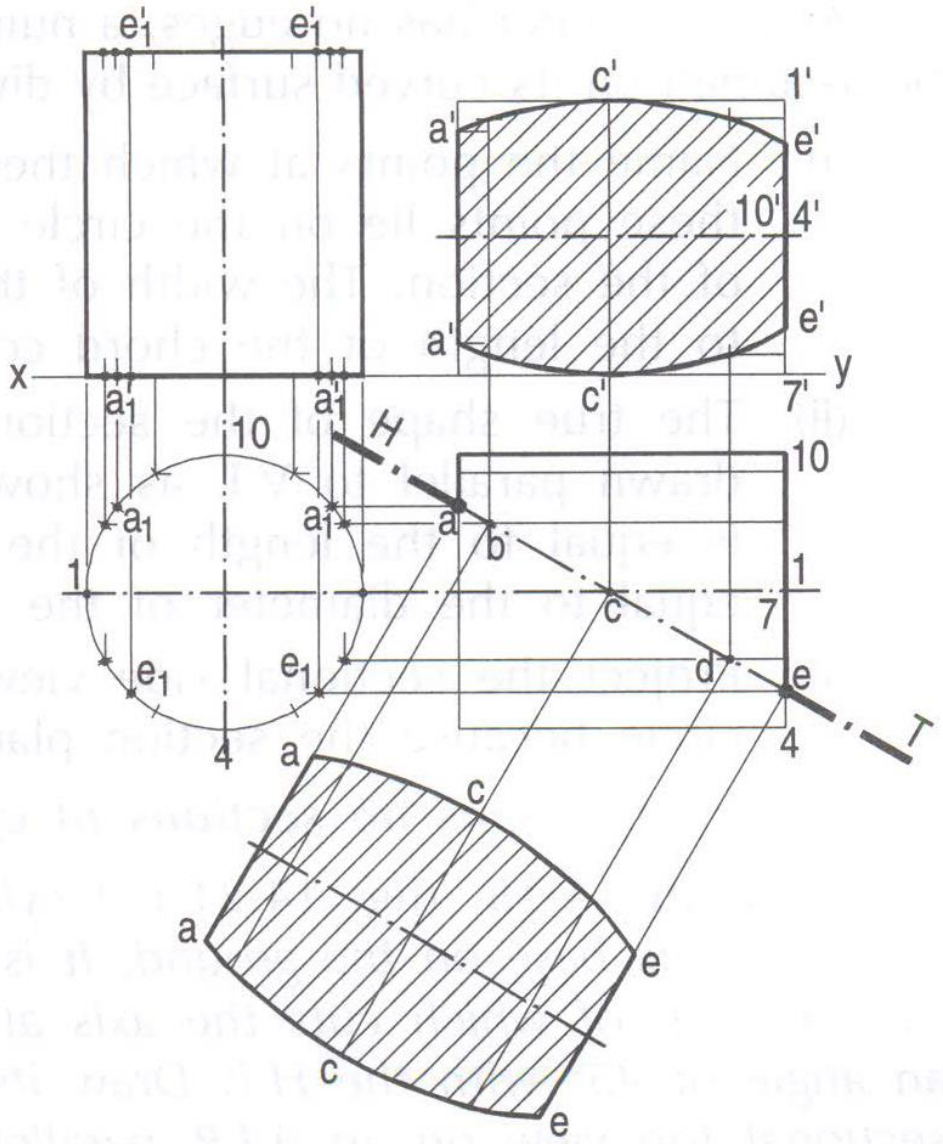
Sections of Solids

Example-19 (Solved Pb. 14-19, pp. 328)

A cylinder, 55 mm diameter and 65 mm long, has its axis parallel to both the HP and VP. It is cut by a vertical section plane inclined at 30° to the VP, so that the axis is cut at a point 30 mm from one of its ends and both the axis of the cylinder are partly cut. Draw its sectional front view and true shape of the section.

Sections of Solids

Example-19 (Solved Pb. 14-19, pp. 328) …



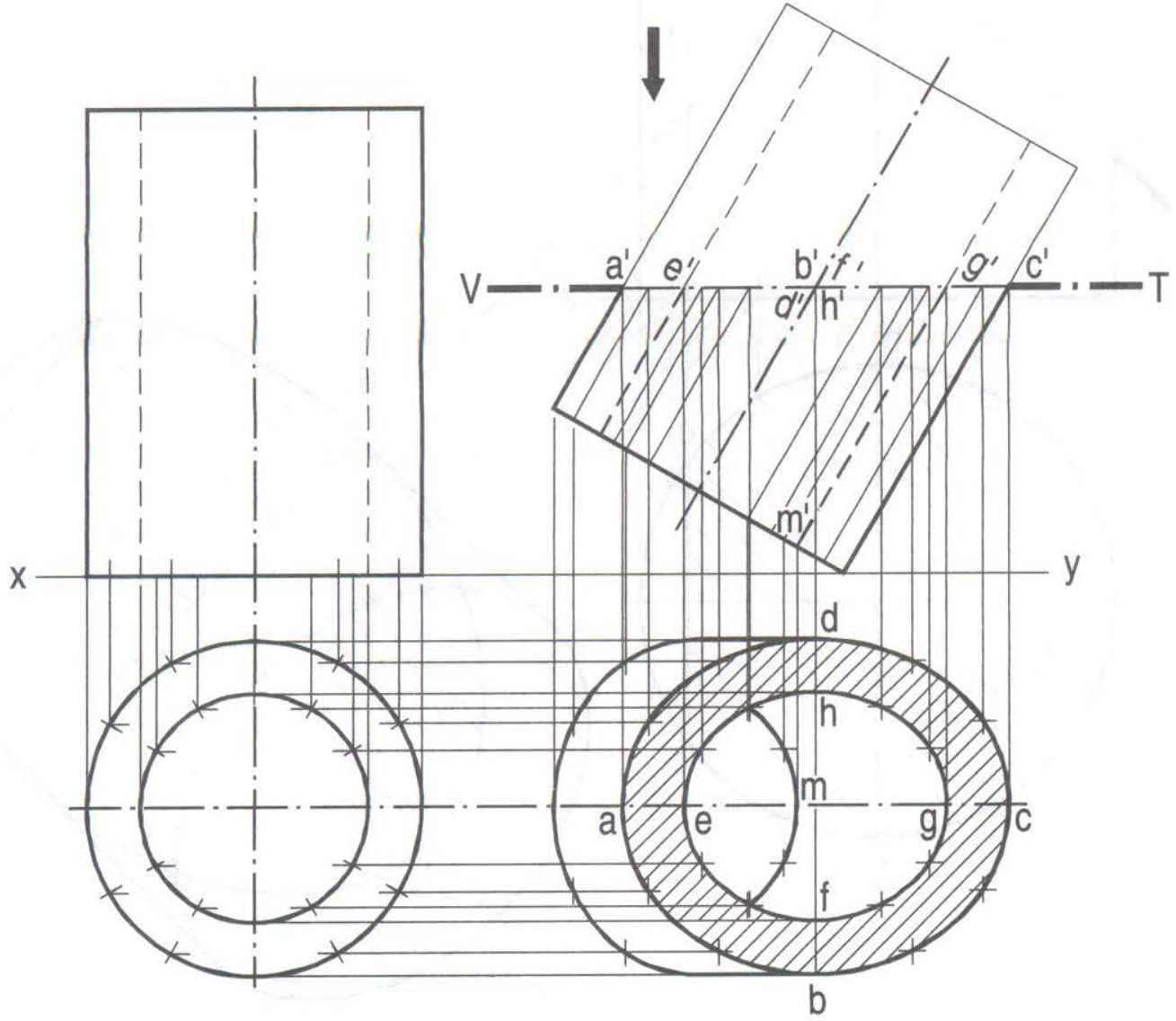
Sections of Solids

Example-20 (Solved Pb. 14-20, pp. 328)

A hollow cylinder, 50 mm outside diameter, axis 70 mm long and thickness 8 mm has its axis parallel to the VP and inclined at 30° to the vertical. It is cut in two equal halves by a horizontal section plane. Draw its sectional top view.

Sections of Solids

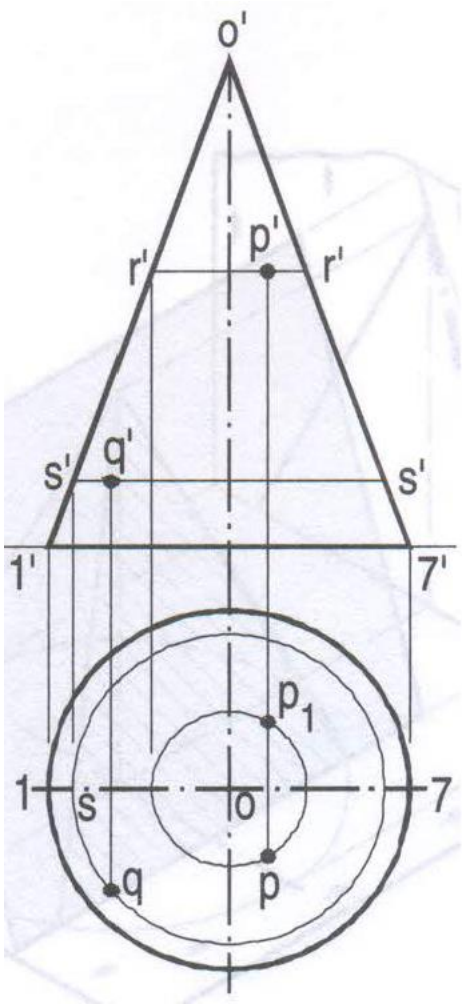
Example-20 (Solved Pb. 14-20, pp. 328) …



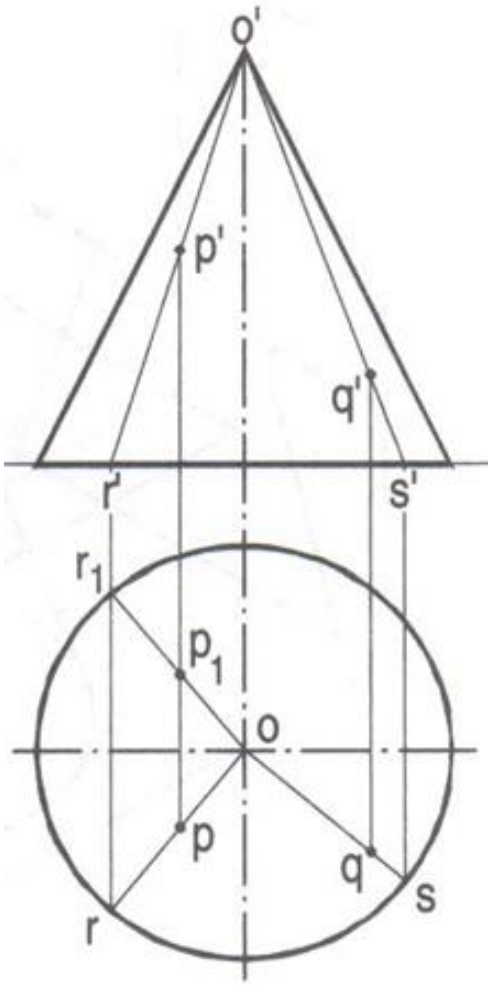
Sections of Cones

Sections of Solids

Cone: Locating a point in the other view



i. Circle method



ii. Generator method

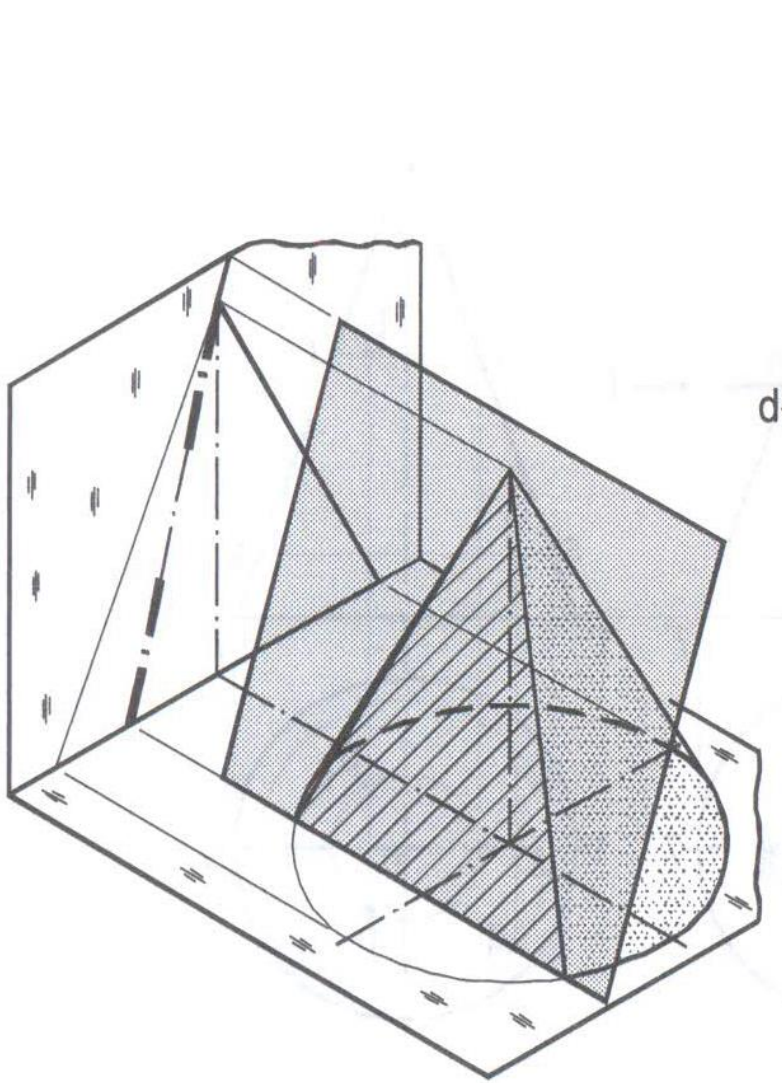
Sections of Solids

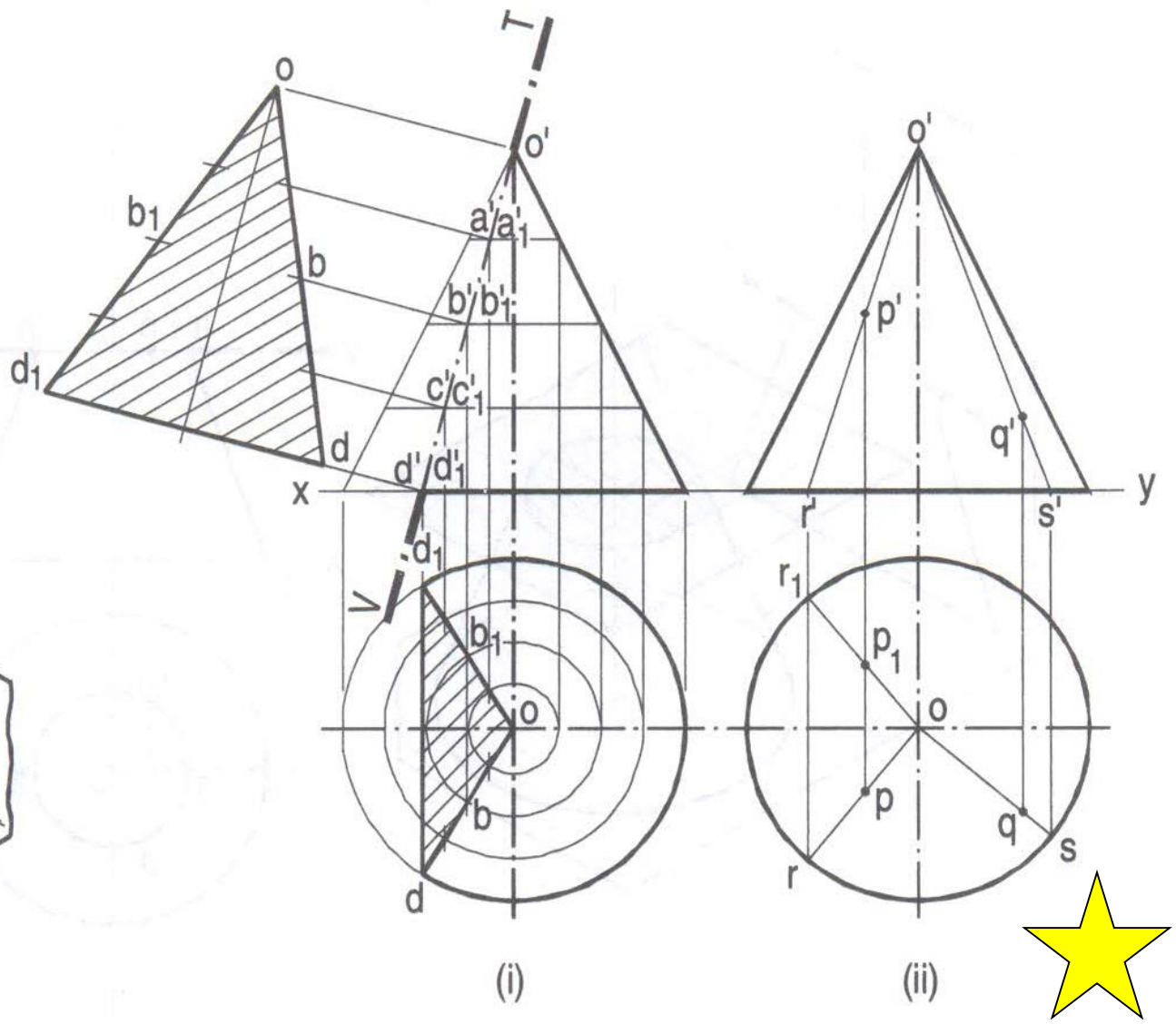
Example-22 (Solved Pb. 14-22, pp. 330)

A cone, diameter of base 50 mm and axis 50 mm long is resting on its base on the HP. It is cut by a section plane perpendicular to the VP, inclined at 75° to the HP and passing through the apex. Draw its front view, sectional top view and true shape of the section. Draw the projection of the cone and on it, show the line VP for the section plane.

Sections of Solids

Example-22 (Solved Pb. 14-22, pp. 330) …





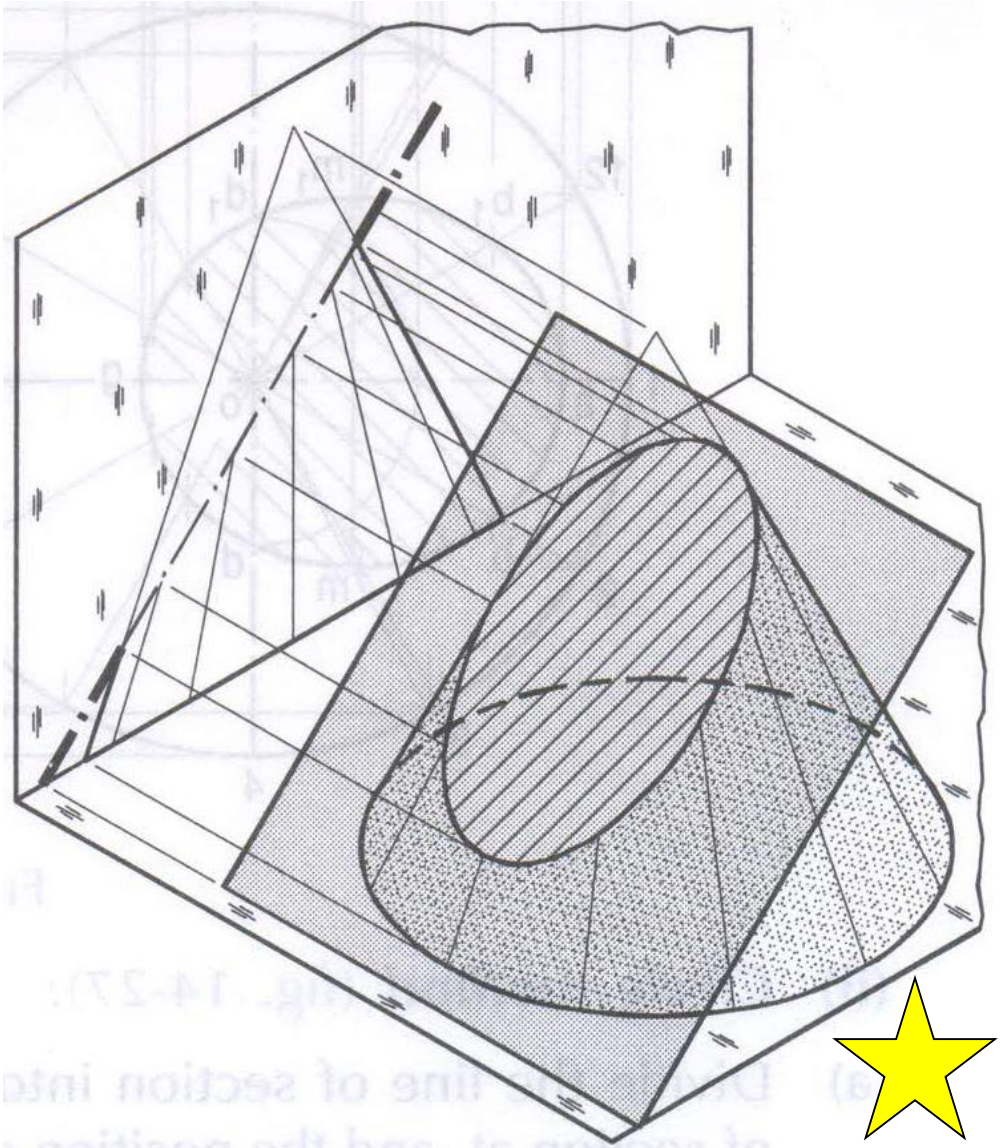
Sections of Solids

Example-24 (Solved Pb. 14-24, pp. 331)

A cone, base 75 mm diameter and axis 80 mm long is resting on its base on the HP. It is cut by a section plane perpendicular to the VP, inclined at 45° to the HP and cutting the axis at a point 35 mm from the apex. Draw its front view, sectional top view, sectional side view and true shape of the section. Do this by both

i. Generator method

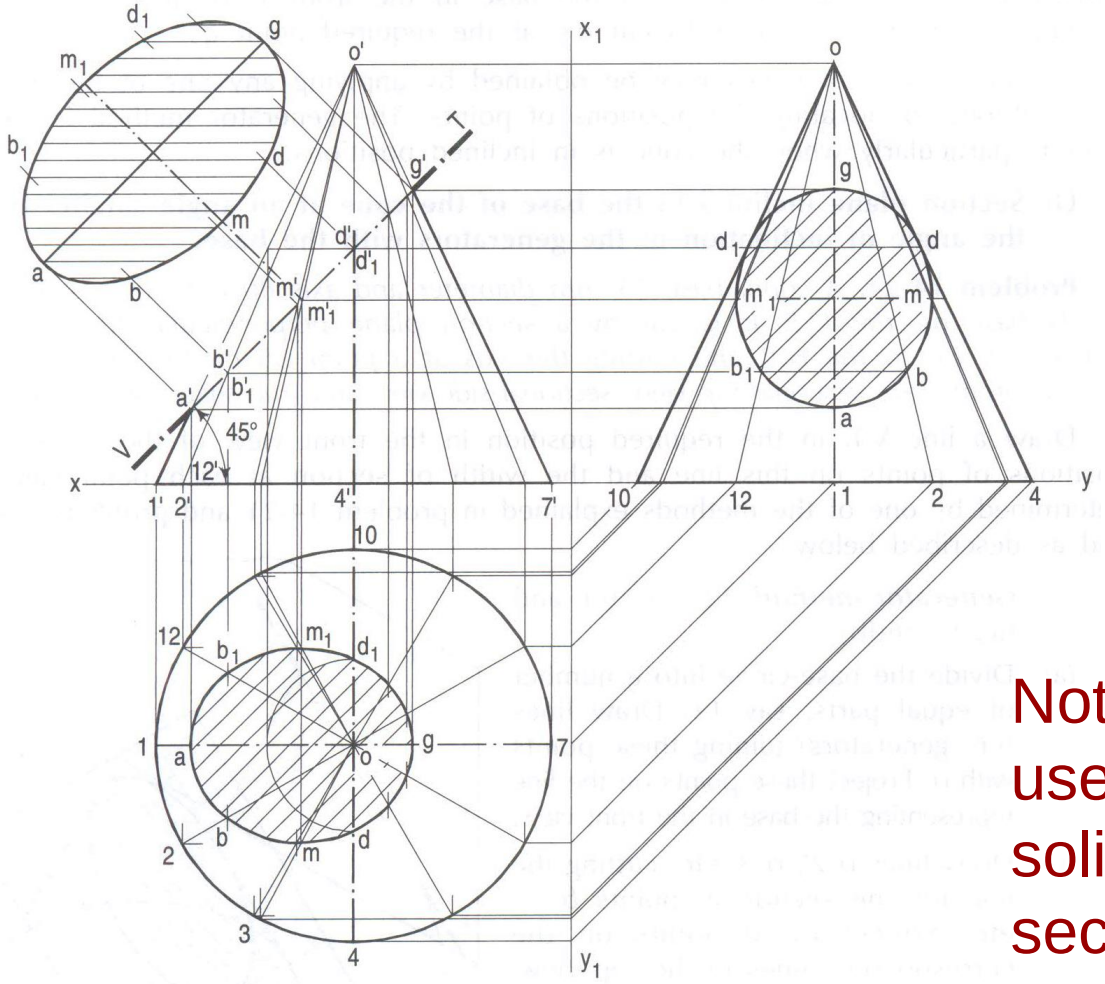
ii. Circle method



Sections of Solids

Example-24 (Solved Pb. 14-24, pp. 331) …

i. Generator method:

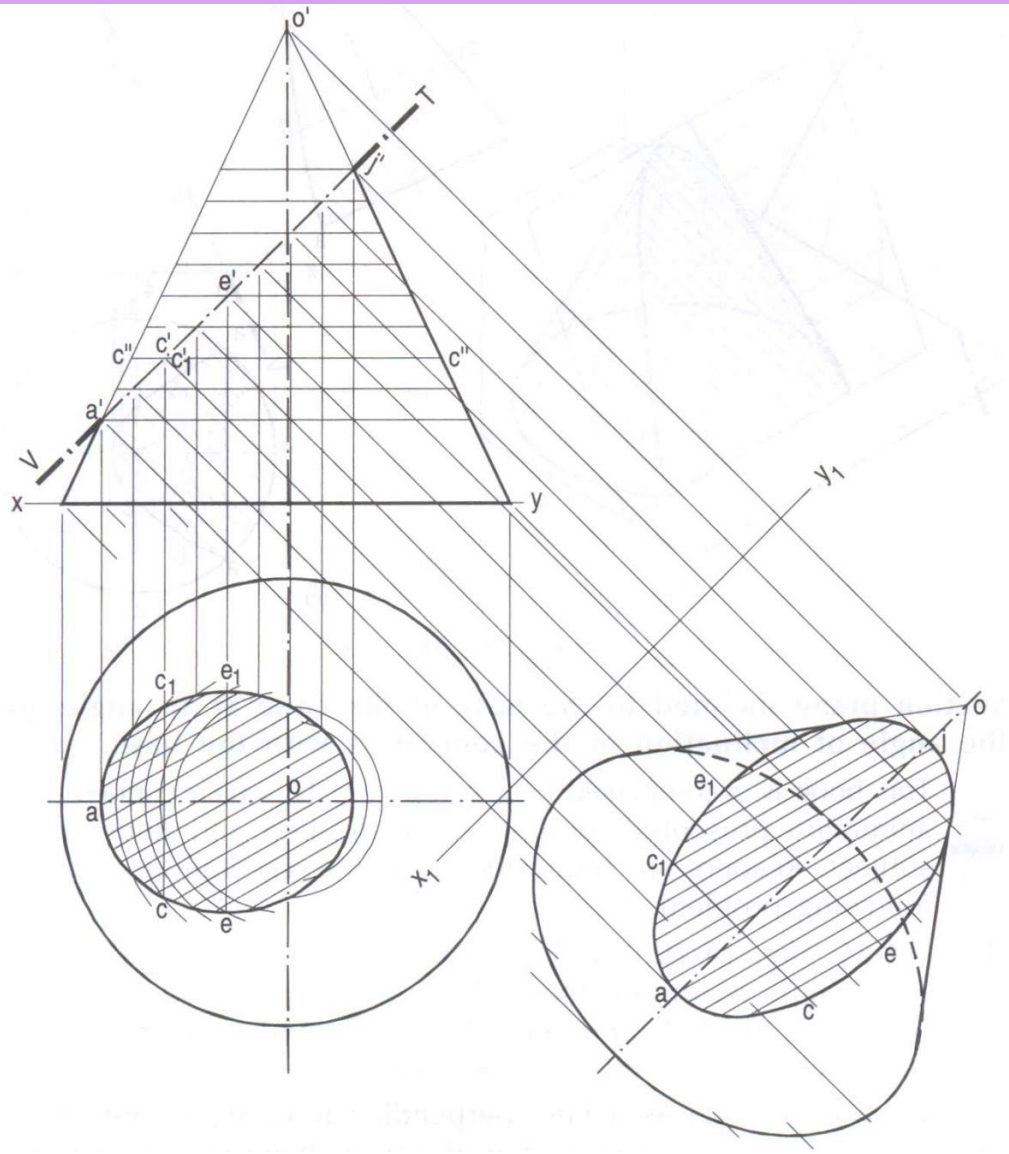


Note: The generators used for creating the solid and for creating the section are different.

Sections of Solids

Example-24 (Solved Pb. 14-24, pp. 331) …

ii. Circle method:



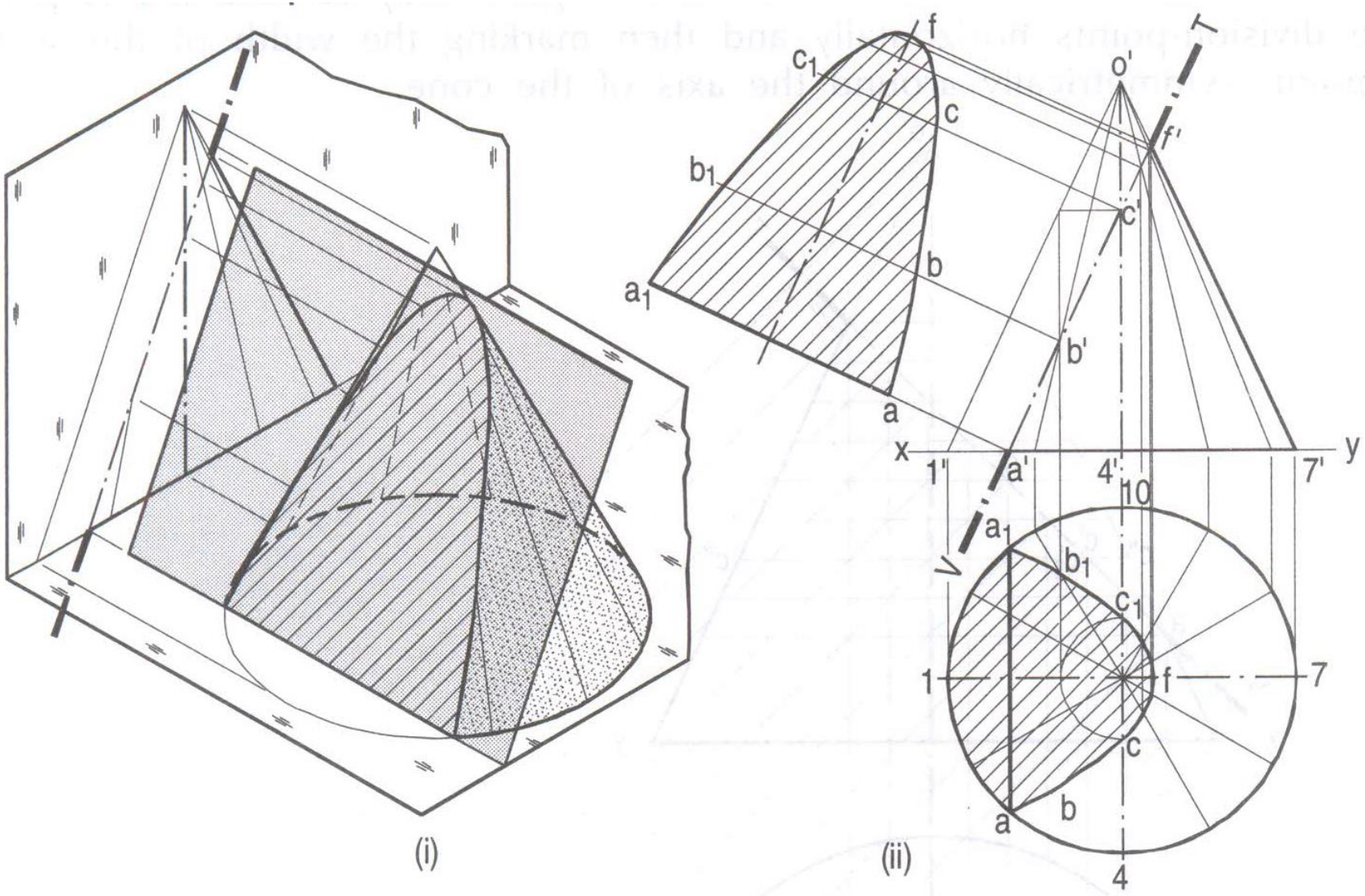
Sections of Solids

Example-25 (Solved Pb. 14-25, pp. 333)

A cone, base 75 mm diameter and axis 80 mm long is resting on its base on the HP. It is cut by a section plane perpendicular to VP and parallel to and 12 mm away from one of its end generators. Draw its front view, sectional top view and true shape of the section.

Sections of Solids

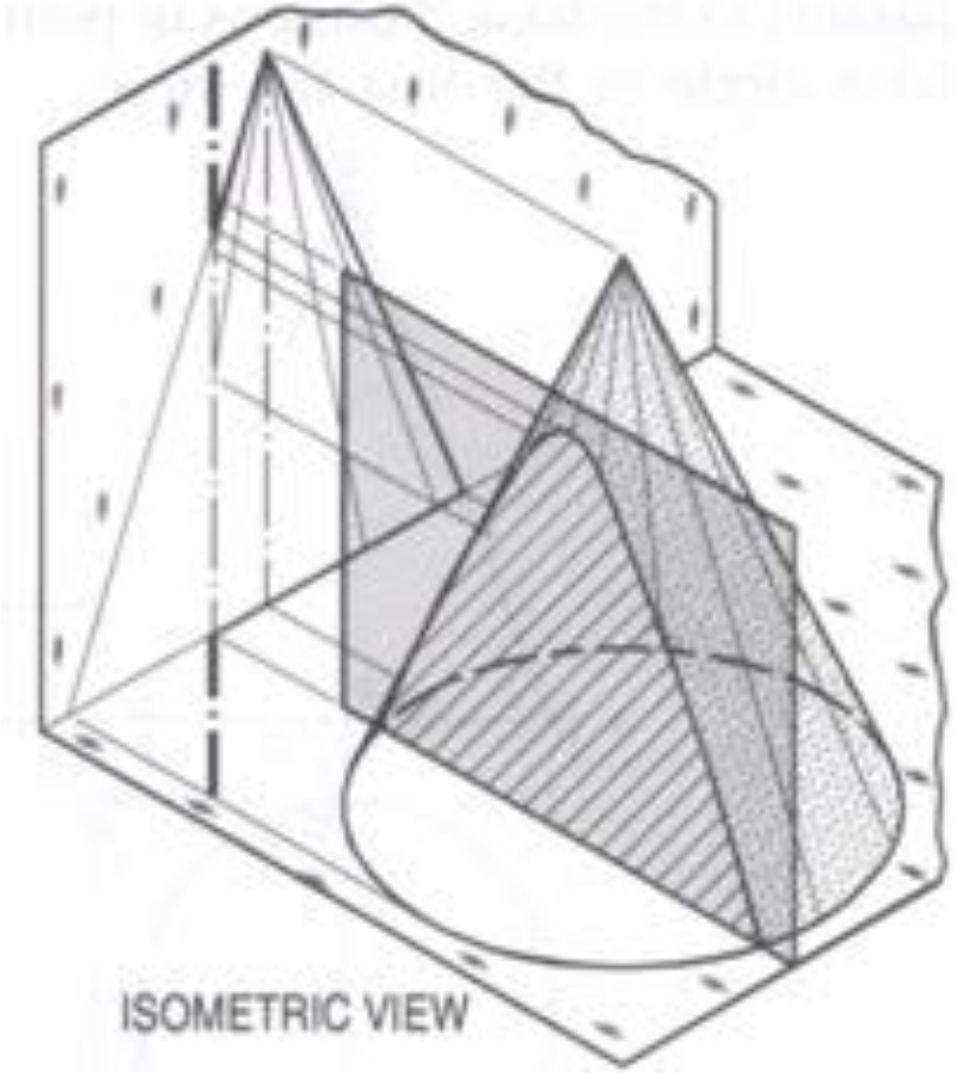
Example-25 (Solved Pb. 14-25, pp. 333) …



Sections of Solids

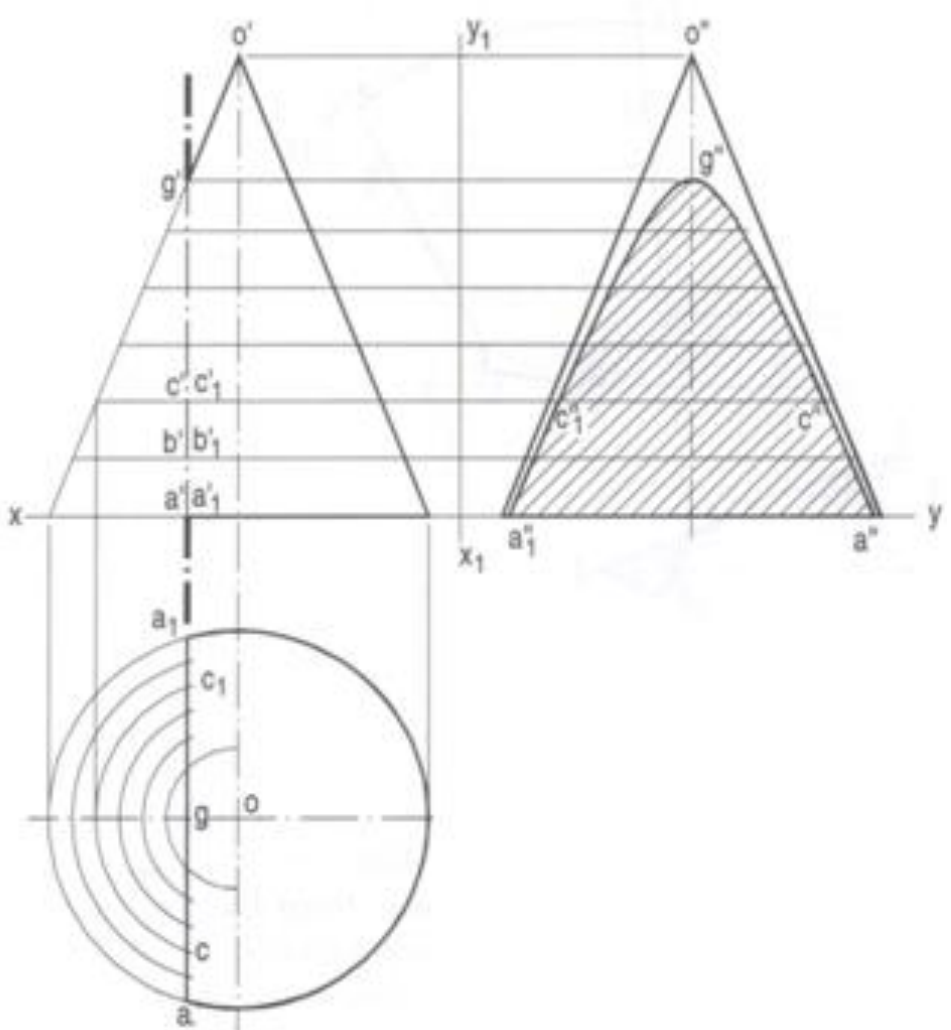
Example-26 (Solved Pb. 14-26, pp. 334)

A cone, base 45 mm diameter and axis 55 mm long is resting on HP on its base. It is cut by a section plane, perpendicular to both the HP and the VP and 6 mm away from the axis. Draw its front view, top view and sectional side view.

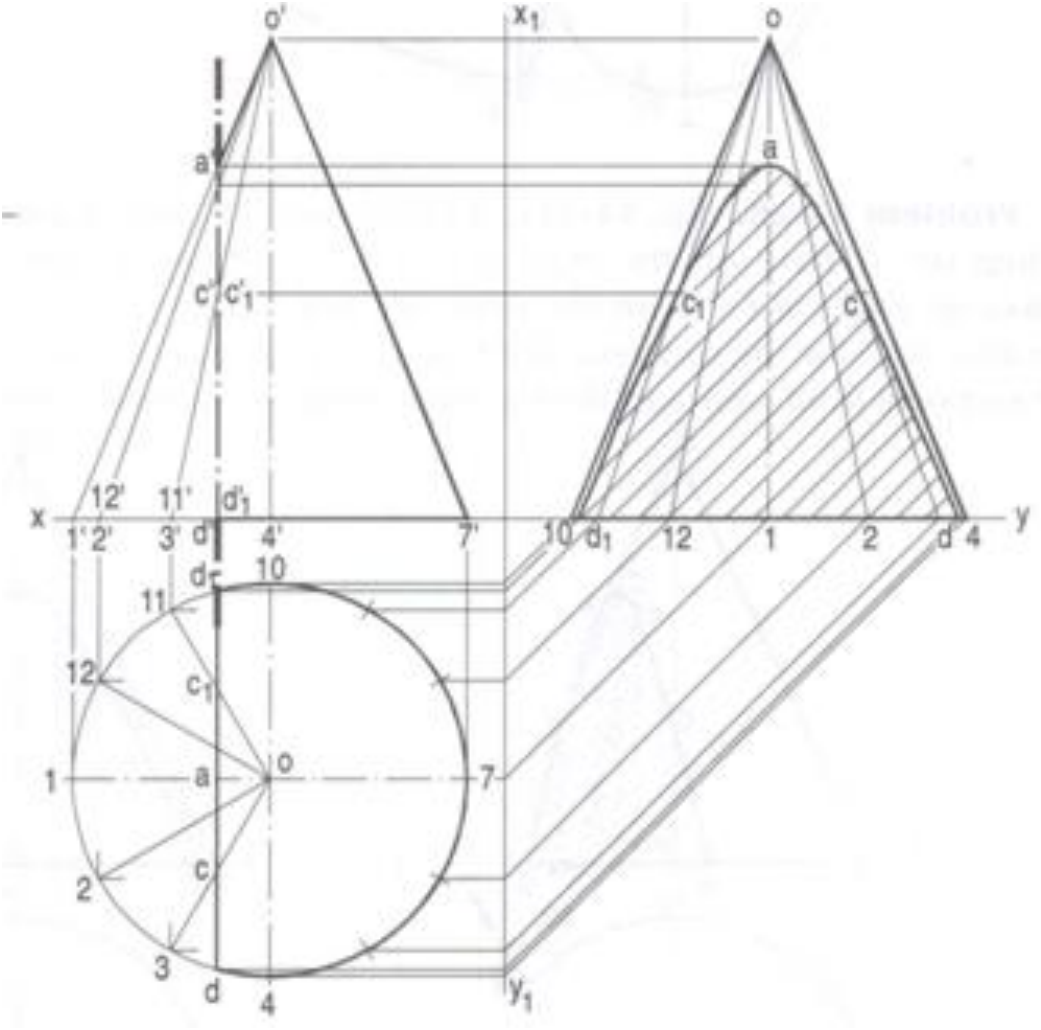


Sections of Solids

Example-26 (Solved Pb. 14-26, pp. 334) …



ii. Circle method:



i. Generator method:

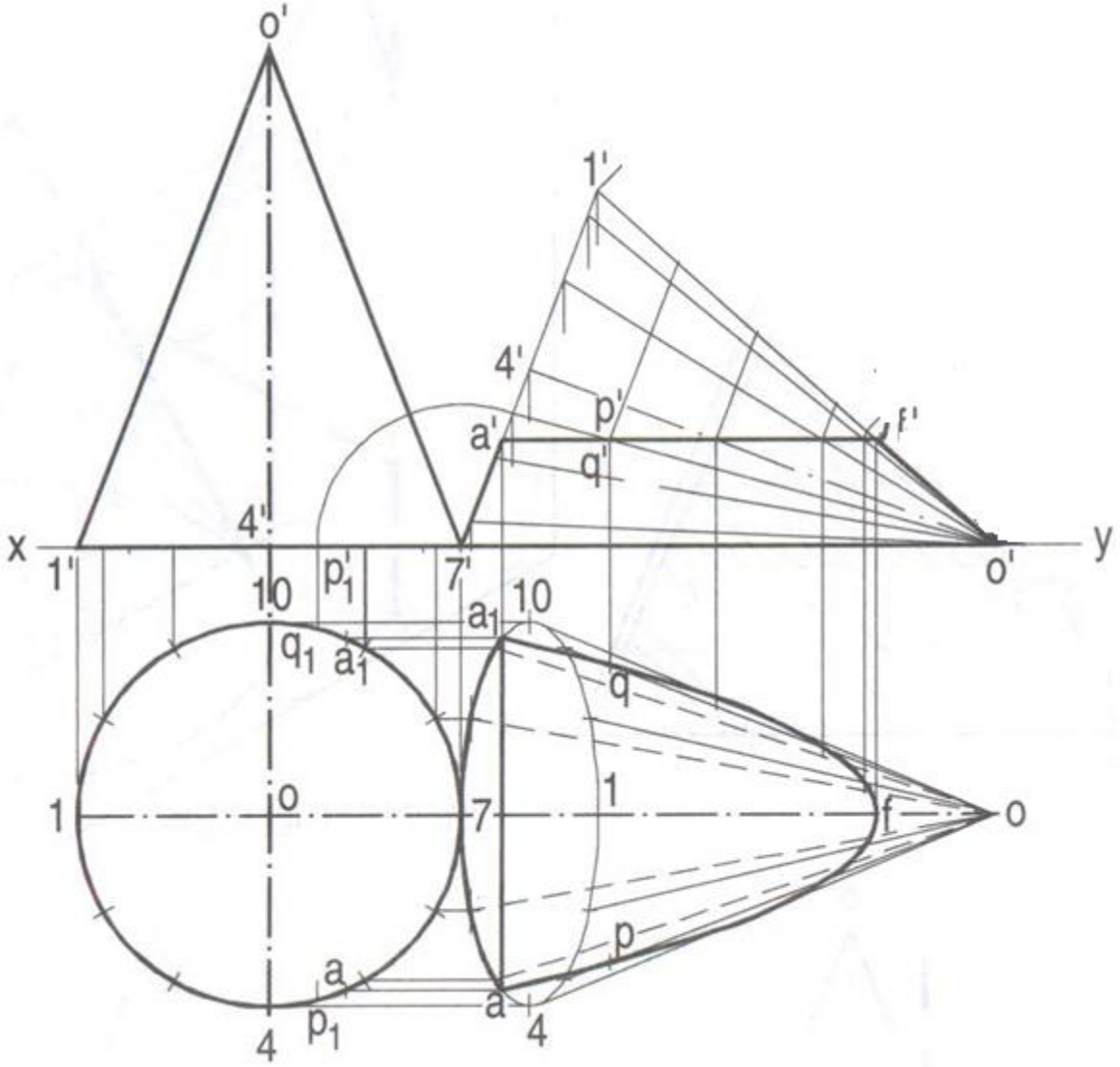
Sections of Solids

Example-27 (Solved Pb. 14-27, pp. 335)

A cone, diameter of base 50 mm and axis 65 mm long, is lying on the HP on one of its generators with the axis parallel to the VP. It is cut by a horizontal section plane 12 mm above the ground. Draw its front view, sectional top view ~~and development of its surface~~.

Sections of Solids

Example-27 (Solved Pb. 14-27, pp. 335) …



Note: This is generator method. The generators used for creating the solid and for creating the section are different.

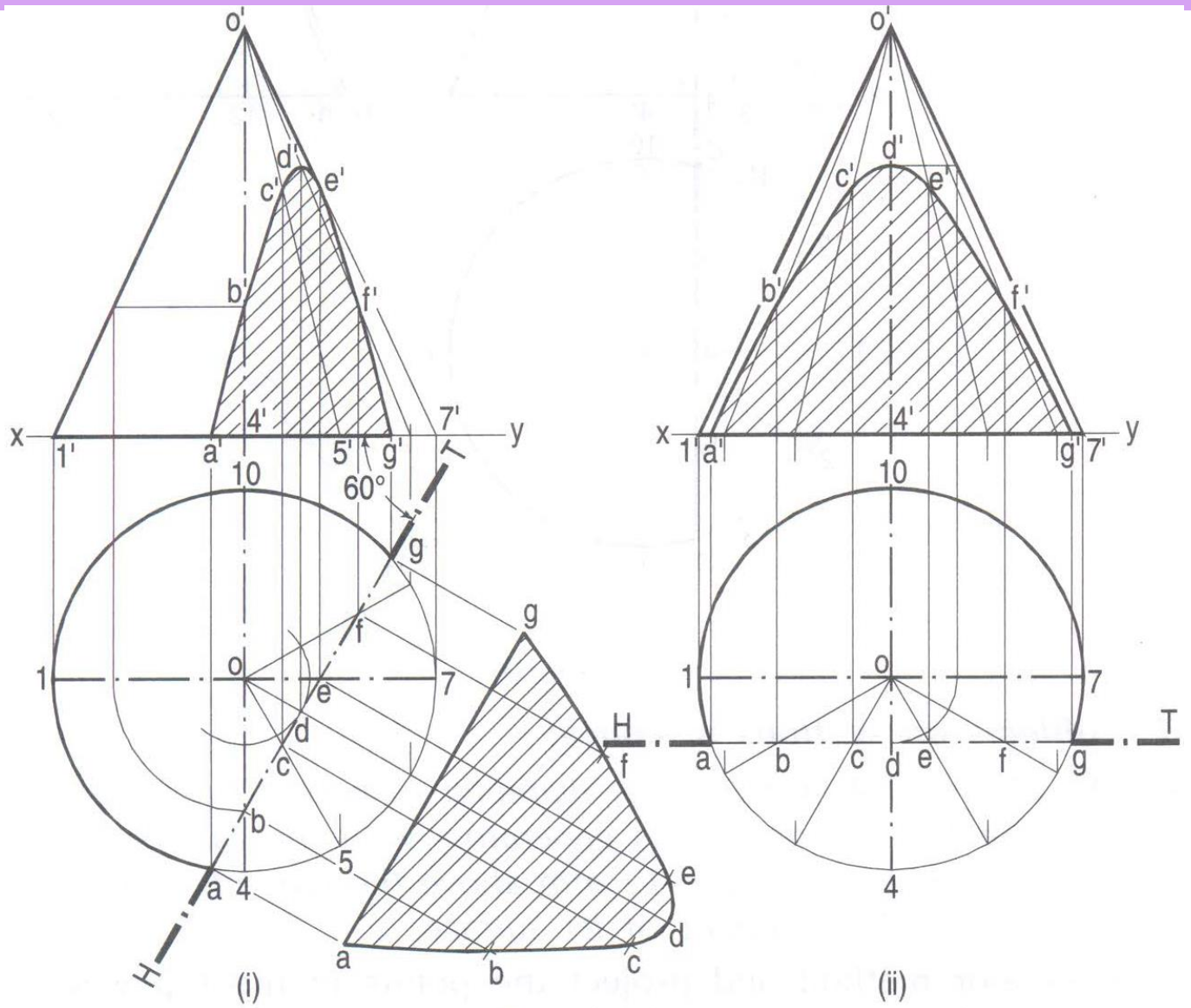
Sections of Solids

Example-28 (Solved Pb. 14-28, pp. 336)

A cone, base 70 mm diameter, axis 75 mm long and resting on its base on the HP, is cut by a vertical section plane, the HT of which makes an angle of 60° with the reference line and is 12 mm away from the top view of the axis. (i) Draw the sectional front view and the true shape of section. (ii) Also draw the sectional front view and the top view when the same section plane is parallel to the VP.

Sections of Solids

Example-28 (Solved Pb. 14-28, pp. 336) …



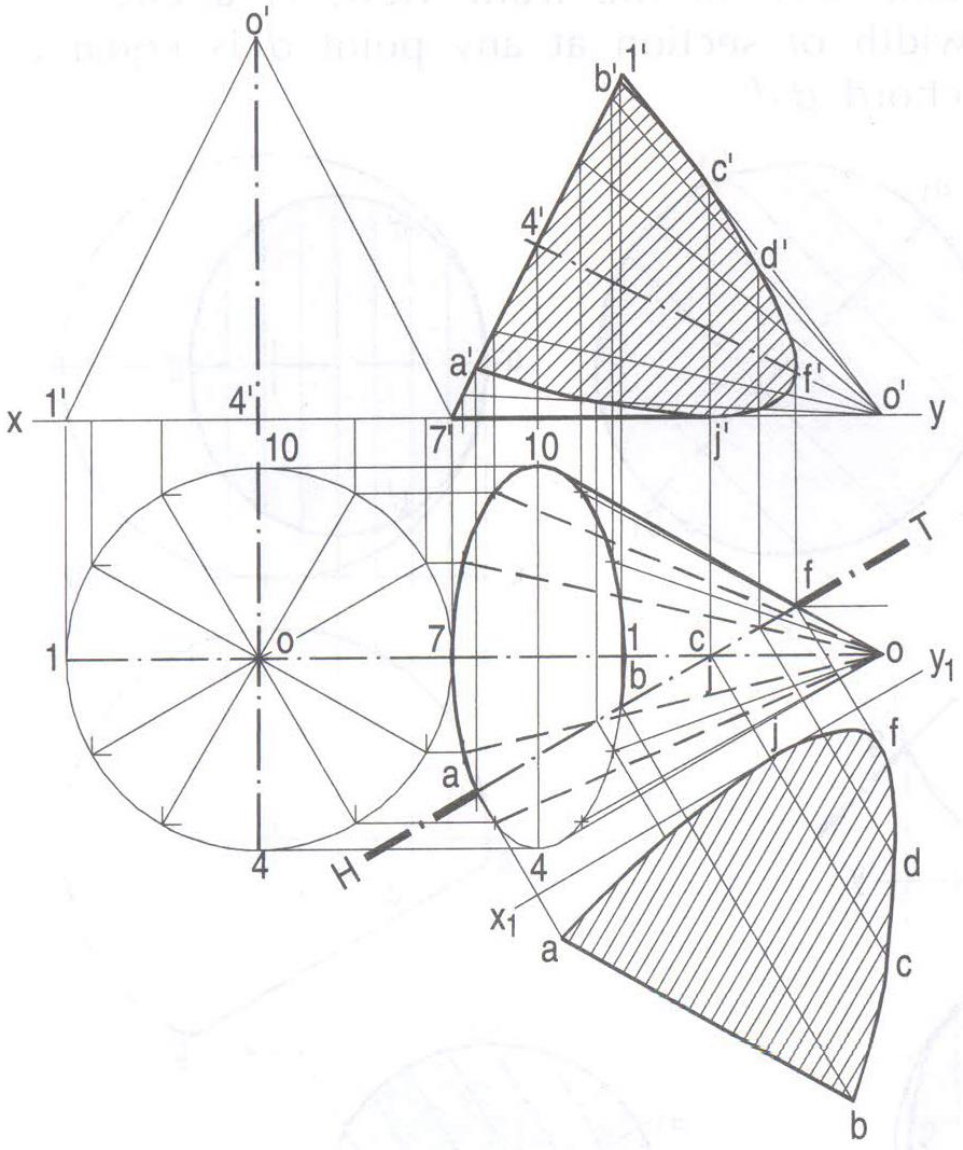
Sections of Solids

Example-29 (Solved Pb. 14-29, pp. 337)

A cone, base 60 mm diameter and axis 60 mm long is lying on the HP on one of its generators with the axis parallel to the VP. A vertical section plane parallel to the generator which is tangent to the ellipse (for the base) in the top view, cuts the cone bisecting the axis and removing the portion containing the apex. Draw its sectional front view and true shape of the section.

Sections of Solids

Example-29 (Solved Pb. 14-29, pp. 337) …



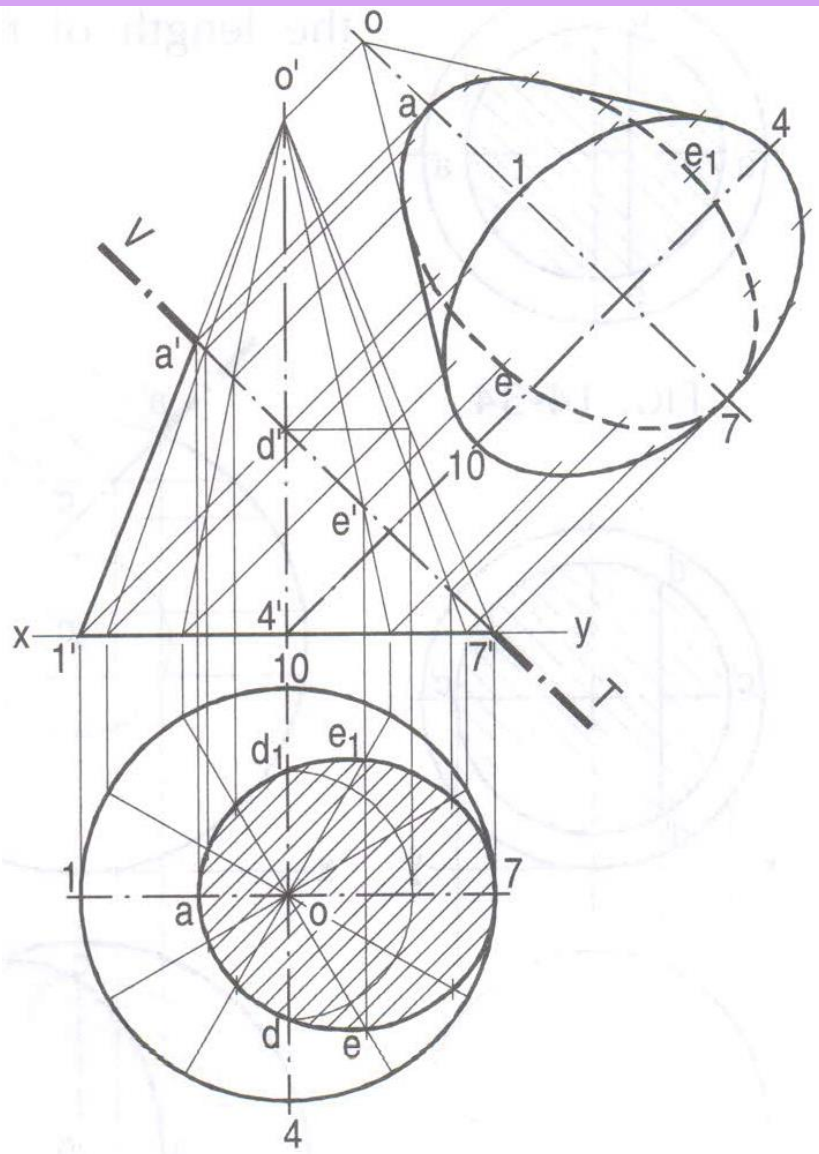
Sections of Solids

Example-30 (Solved Pb. 14-30, pp. 337)

A cone, base 60 mm diameter and axis 75mm long, is resting on the HP on its base. It is cut by a section plane, perpendicular to the VP, inclined at 45° to the HP and intersecting the axis 30mm above the base. Draw its front view and sectional top view. Also draw its top view when it is lying on the ground on its cut-surface with the axis parallel to the VP.

Sections of Solids

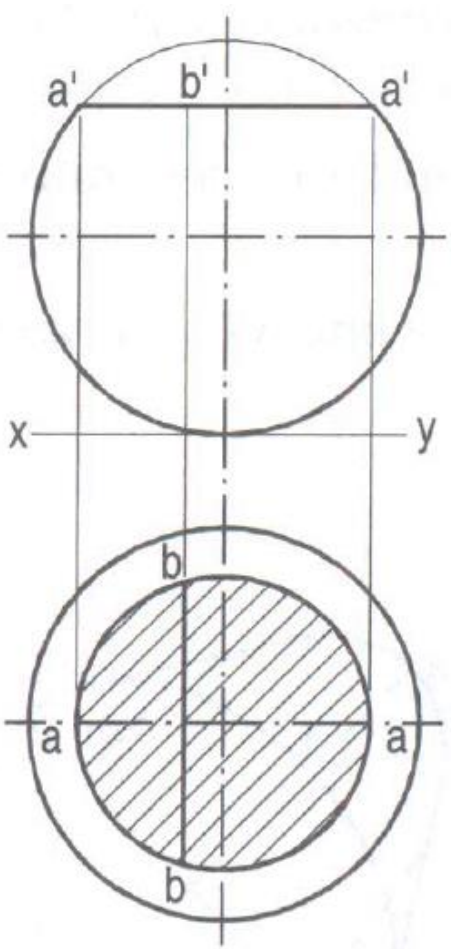
Example-30 (Solved Pb. 14-30, pp. 337) …



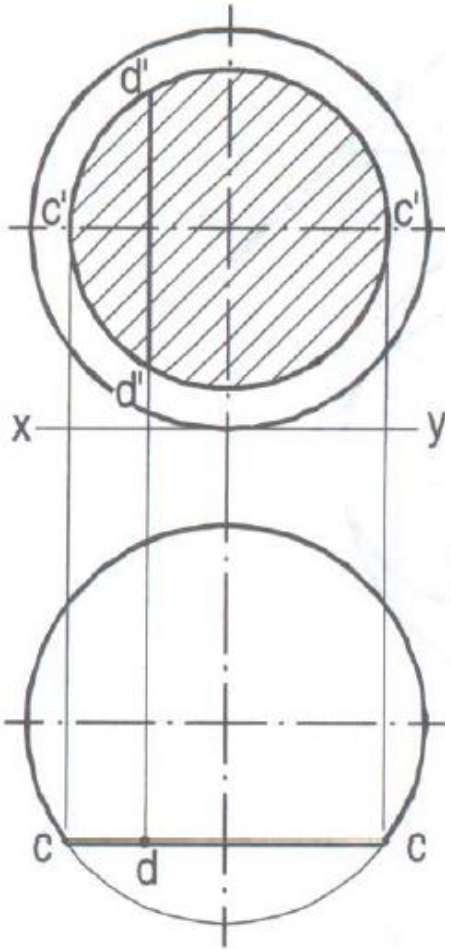
Sections of Spheres

Sections of Solids

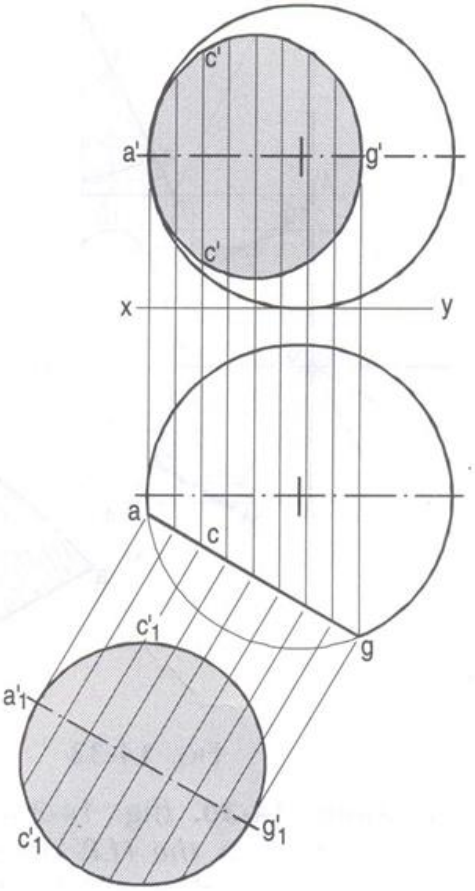
Method: Similar to Circle method:



Section plane parallel to H.P.



Section plane parallel to V.P.

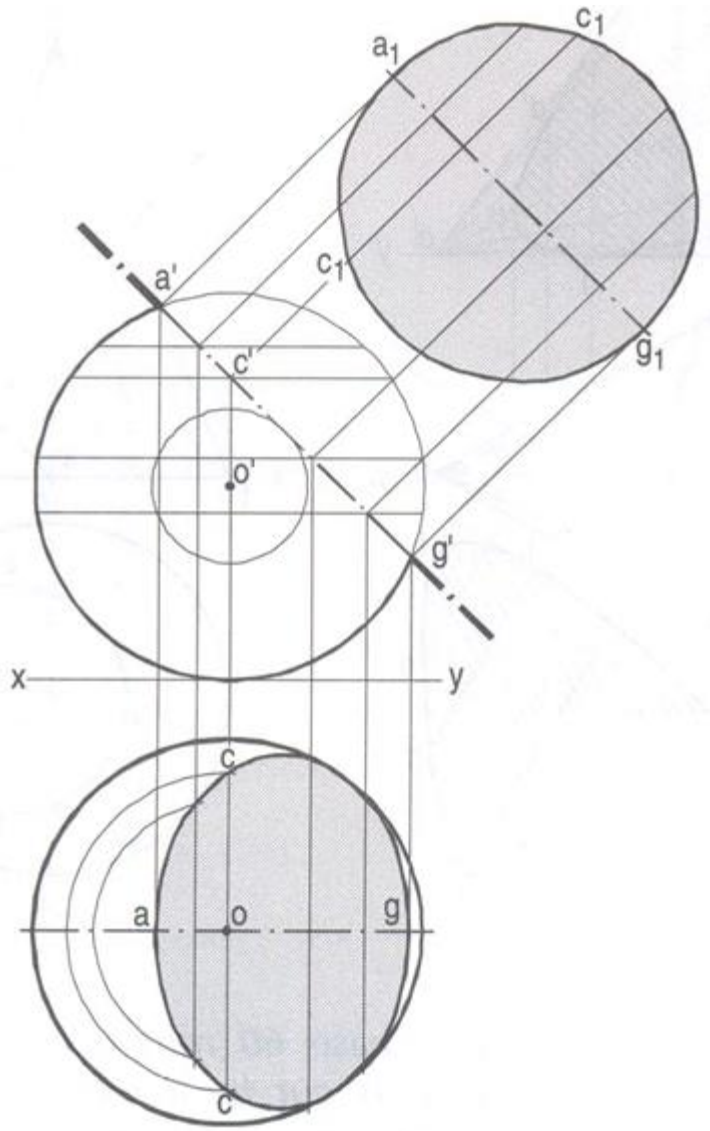


Inclined section plane

Sections of Solids

Example-31 (Solved Pb. 14-31, pp. 338)

A sphere of 50 mm diameter is cut by a section plane perpendicular to the VP, inclined at 45° to the HP and at a distance of10 mm from its centre. Draw the sectional top view and true shape of the section.



Sections of Composite Solids

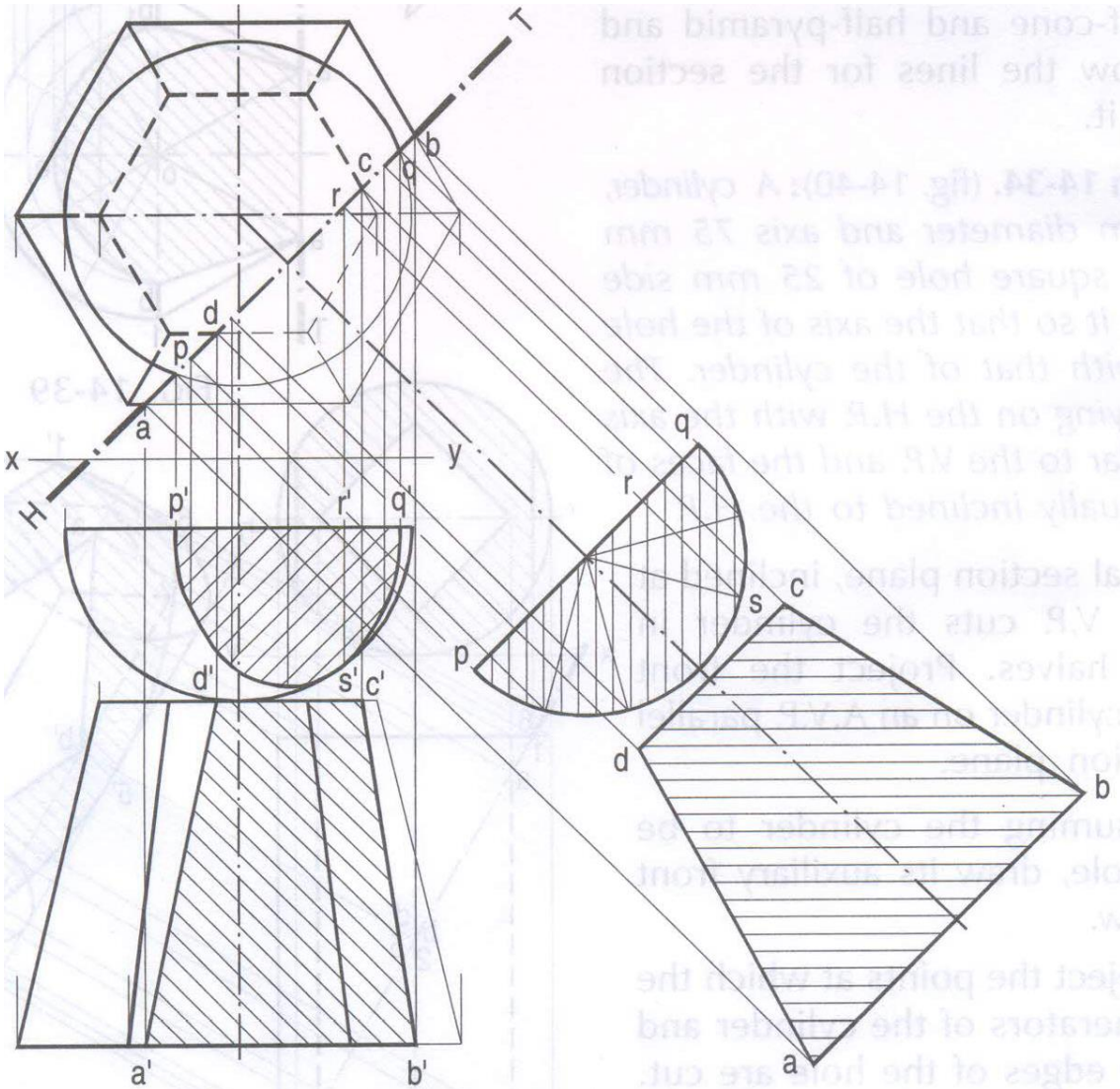
Sections of Solids

Example-32 (Solved Pb. 14-32, pp. 339)

The projections of a hemisphere 50 mm diameter placed centrally on the top of a frustum of a hexagonal pyramid, base 32 mm side, top 20 mm side and axis 50 mm long are given. Draw the sectional front view when the vertical section plane HT inclined at 45° to the VP and 10 mm from the axis, cuts them. Also draw the true shape of the sections of both the solids.

Sections of Solids

Example-32 (Solved Pb. 14-32, pp. 339) …



(Third-angle projection)

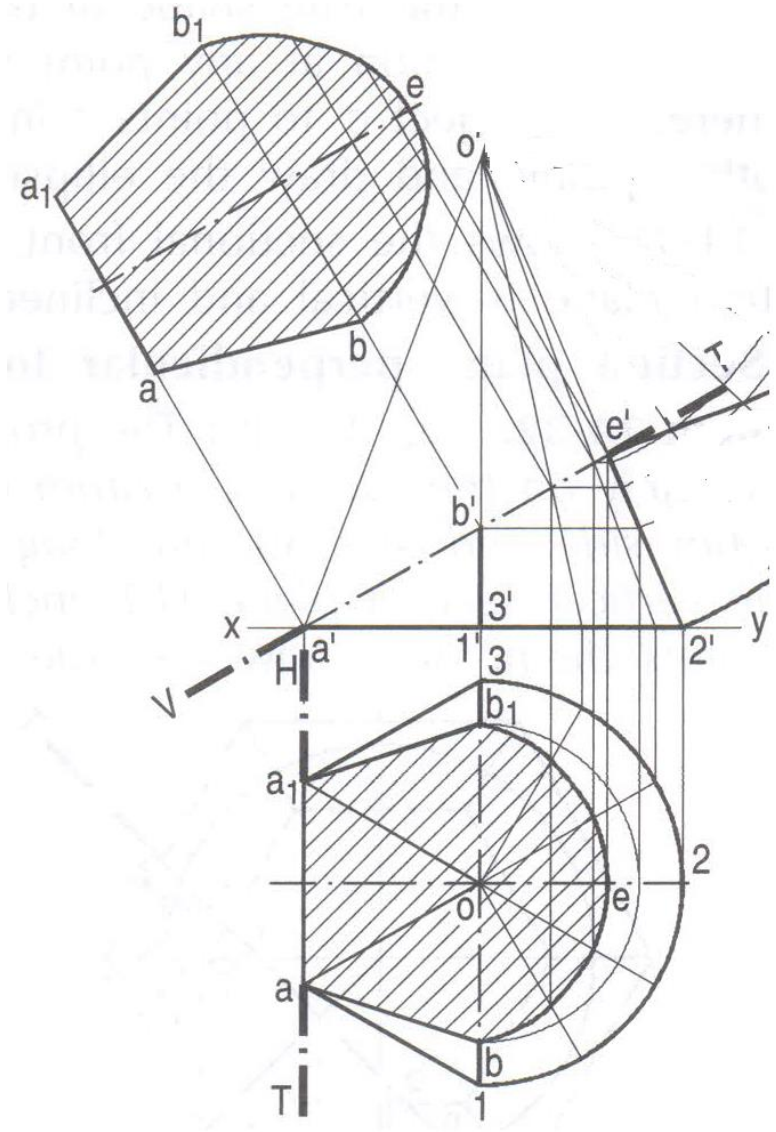
Sections of Solids

Example-33 (Solved Pb. 14-32, pp. 340)

A solid composed of a half-cone and a half hexagonal pyramid is cut by a section plane, which makes an angle of 30° with the base, is perpendicular to the VP and contains an edge of the base of the pyramid. Draw its sectional ~~and development of the surface of the remaining portion.~~ Base of cone 60 mm diameters; axis 70 mm long.

Sections of Solids

Example-33 (Solved Pb. 14-32, pp. 340) …



Sections of Solids

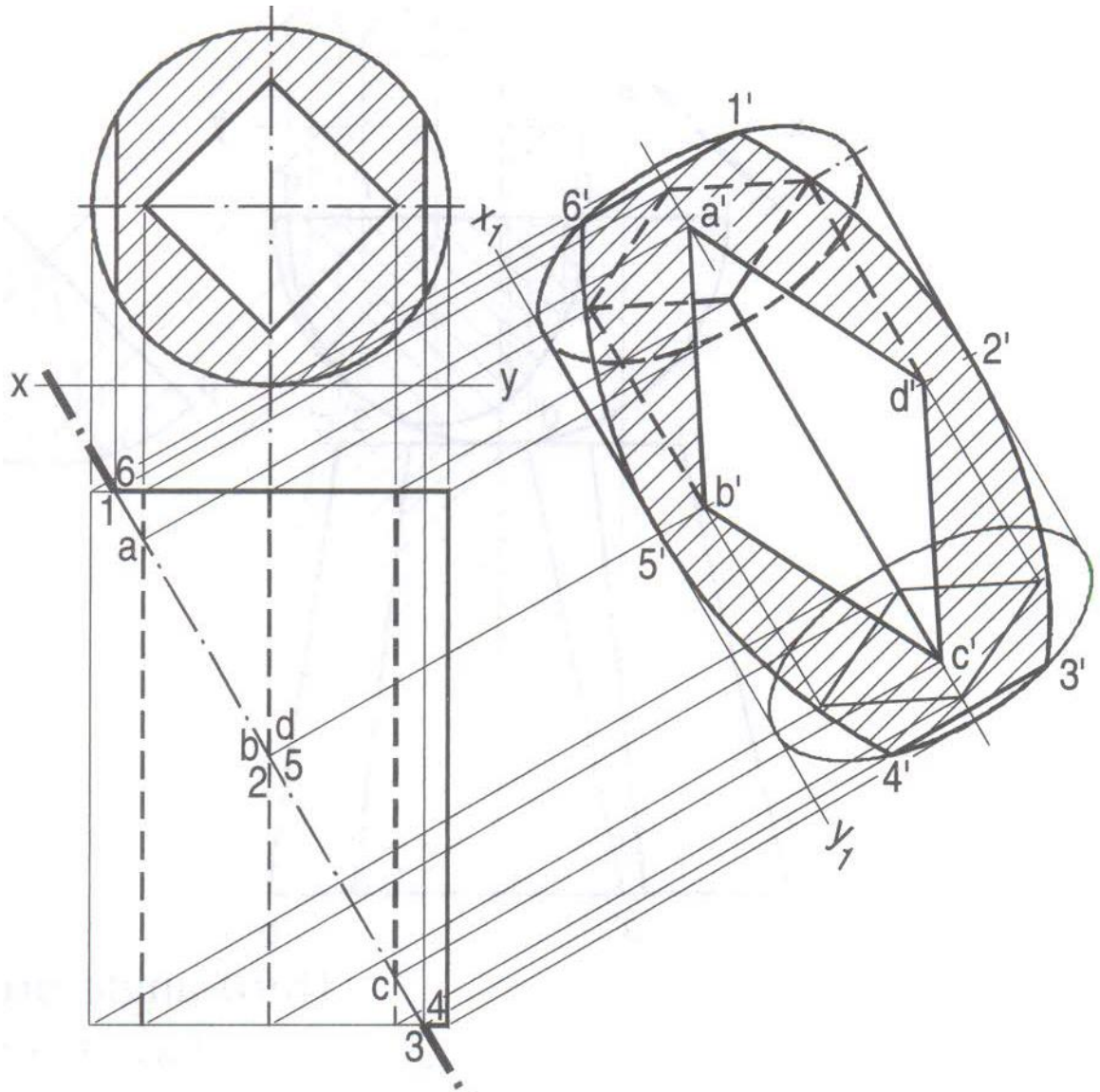
Example-34 (Solved Pb. 14-34, pp. 340)

A cylinder, base 50 mm diameter and axis 75 mm long, has a square hole of 25 mm side cut through it so that the axis of the hole coincides with that of the cylinder. The cylinder is lying on the HP and the axis perpendicular to VP and the face of the hole equally inclined to the HP. A vertical sectioning plane inclined at 60° to the V.P. cuts the cylinder into two equal pieces. Project the front view of the cylinder on an AVP parallel to the sectioning plane.

Note: Inclination is given but its lateral position is indirectly specified.

Sections of Solids

Example-34 (Solved Pb. 14-34, pp. 340) …



Sections of Solids

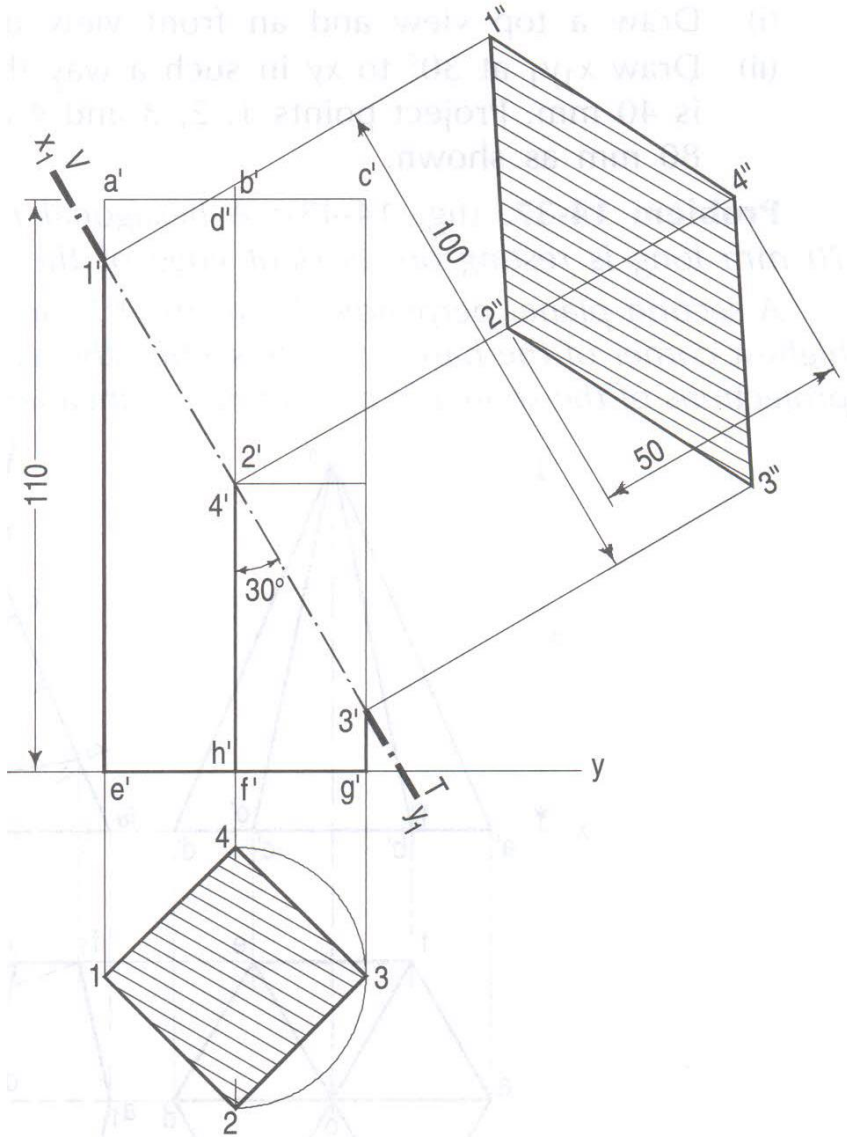
Example-35 (Solved Pb. 14-35, pp. 341)

A square prism axis 110 mm long is resting on its base in the HP. The edge of the base are equally inclined to VP. The prism is cut by an AIP making 60° w.r.t. H.P. passing through the mid-point of the axis and in such a way that the true shape of the section is rhombus having diagonals of 100 mm and 50 mm. Draw the projections and determine the inclination of AIP with the HP.

Note: An indirect way of specifying the size of its base.

Sections of Solids

Example-35 (Solved Pb. 14-35, pp. 341) …



Sections of Solids

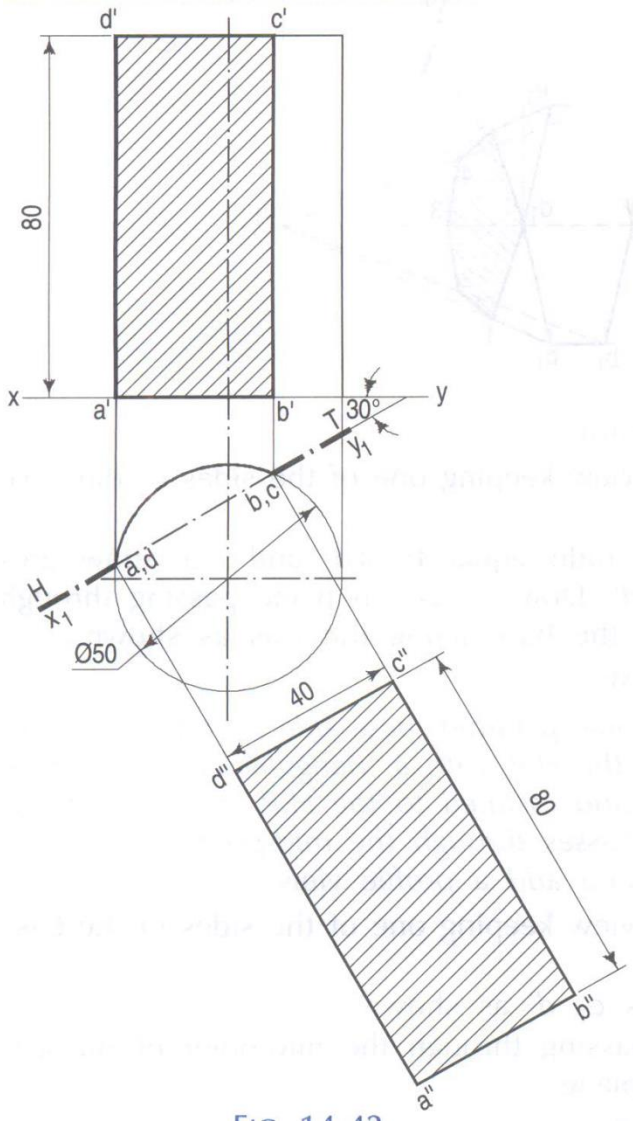
Example-36 (Solved Pb. 14-36, pp. 341)

A vertical cylinder 50 mm diameter is cut by a AVP making 30° to the VP in such a way that the true shape of the section is a rectangle of 40 mm × 80 mm sides. Draw the projections and the true shape of the sections.

Note: An indirect way of specifying the inclination of the sectioning plane.

Sections of Solids

Example-36 (Solved Pb. 14-36, pp. 341) …



Sections of Solids

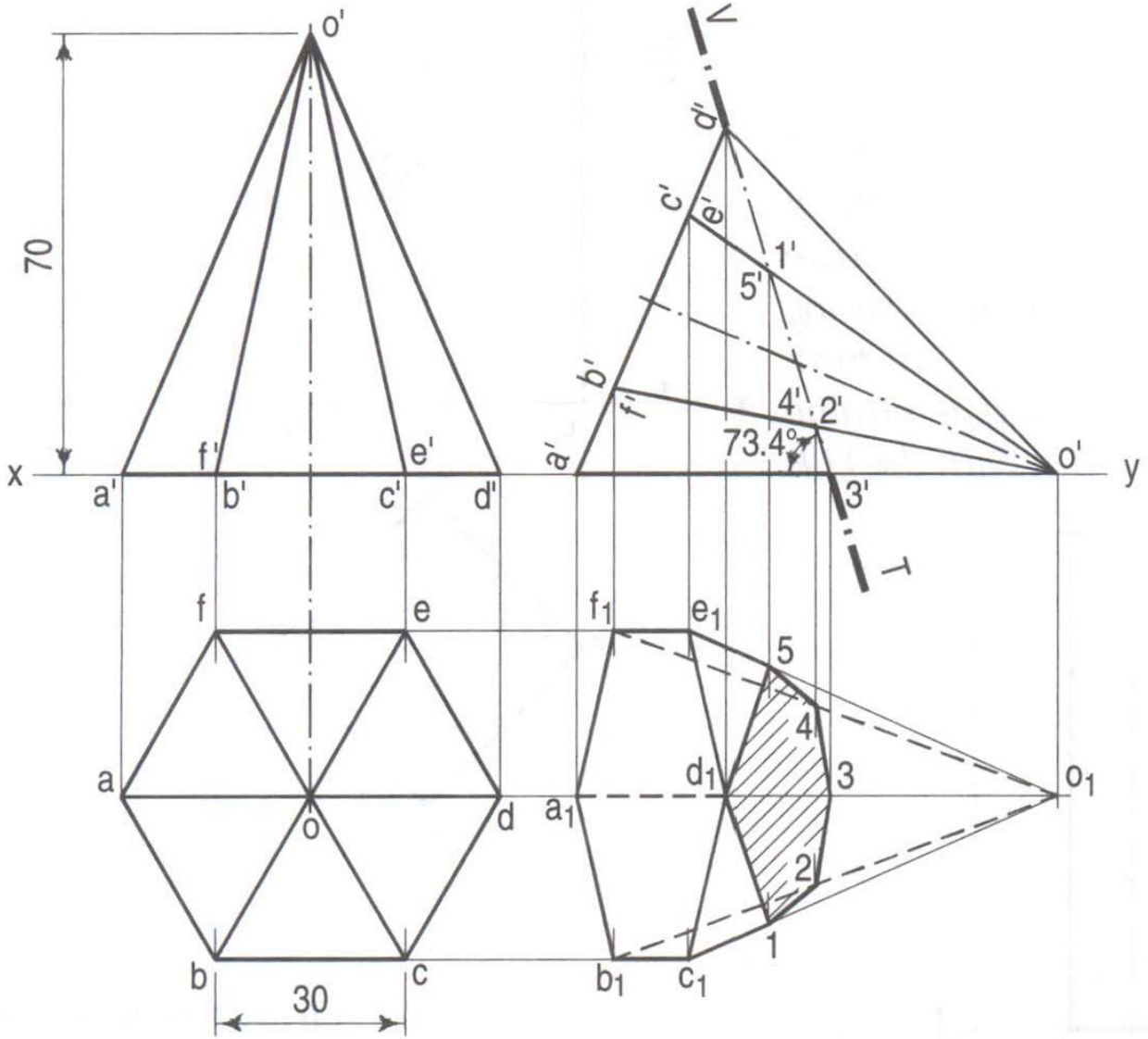
Example-37 (Solved Pb. 14-37, pp. 342)

A hexagonal pyramid, base 30 mm side and axis 70 mm long is resting on its slant edge of the face on the horizontal plane with axis parallel to V.P. A section plane, perpendicular to the VP, inclined to the HP passes through the highest corner of the base and intersecting the axis at 25 mm from the base. Draw the projections of the solid and determine the inclination of the section plane with the HP.

Note: An indirect way of specifying the inclination of the sectioning plane.

Sections of Solids

Example-37 (Solved Pb. 14-37, pp. 342) …



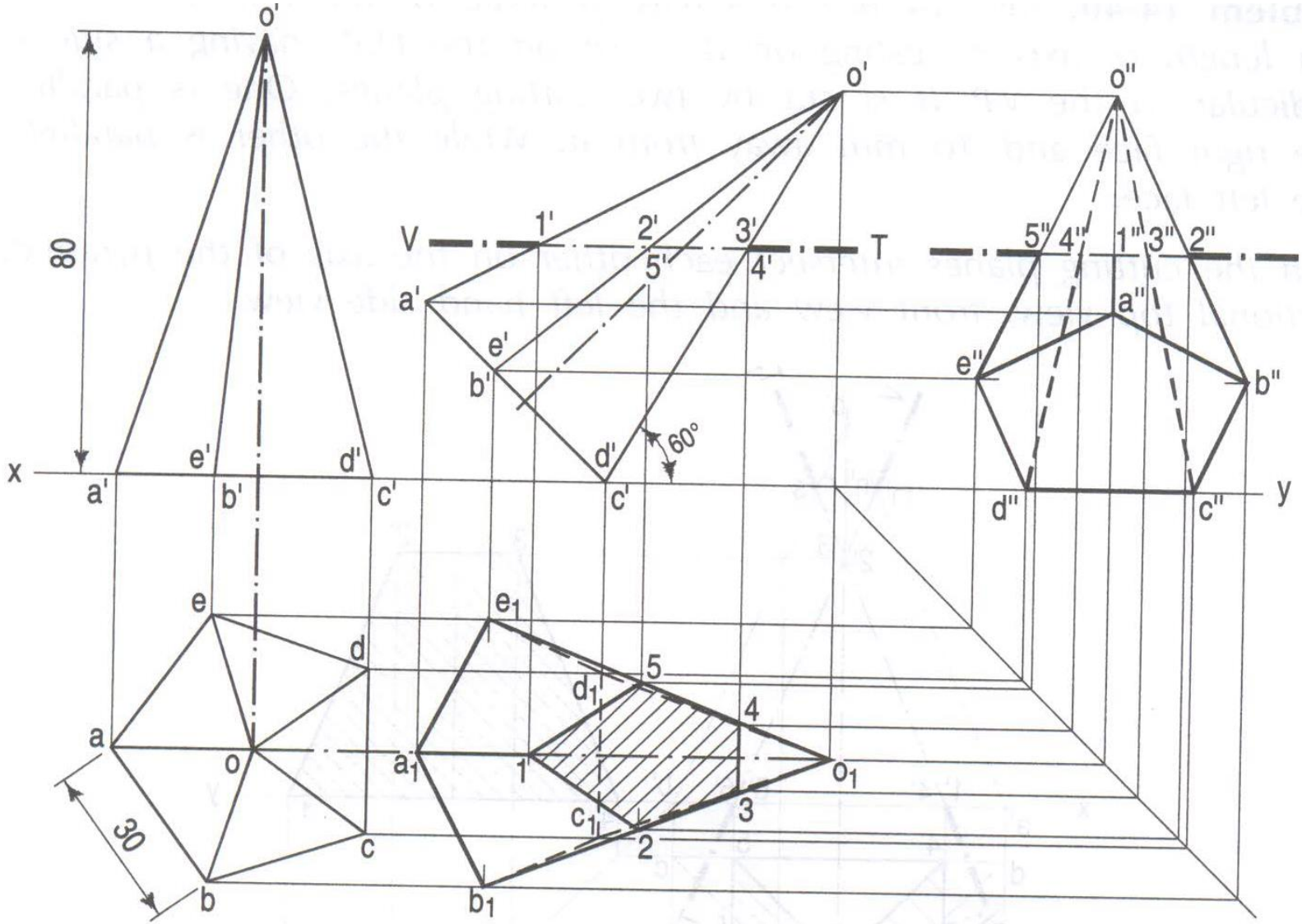
Sections of Solids

Example-38 (Solved Pb. 14-38, pp. 342)

A pentagonal pyramid, base side 30 mm, length of axis 80 mm is resting on a base edge on the HP with a triangular face containing that edge being perpendicular to VP and inclined to HP at 60°. It is cut by a horizontal section plane whose VT passes through the mid-point of the axis. Draw the front view, sectional top view and a profile view.

Sections of Solids

Example-38 (Solved Pb. 14-38, pp. 342) …



Sections of Solids

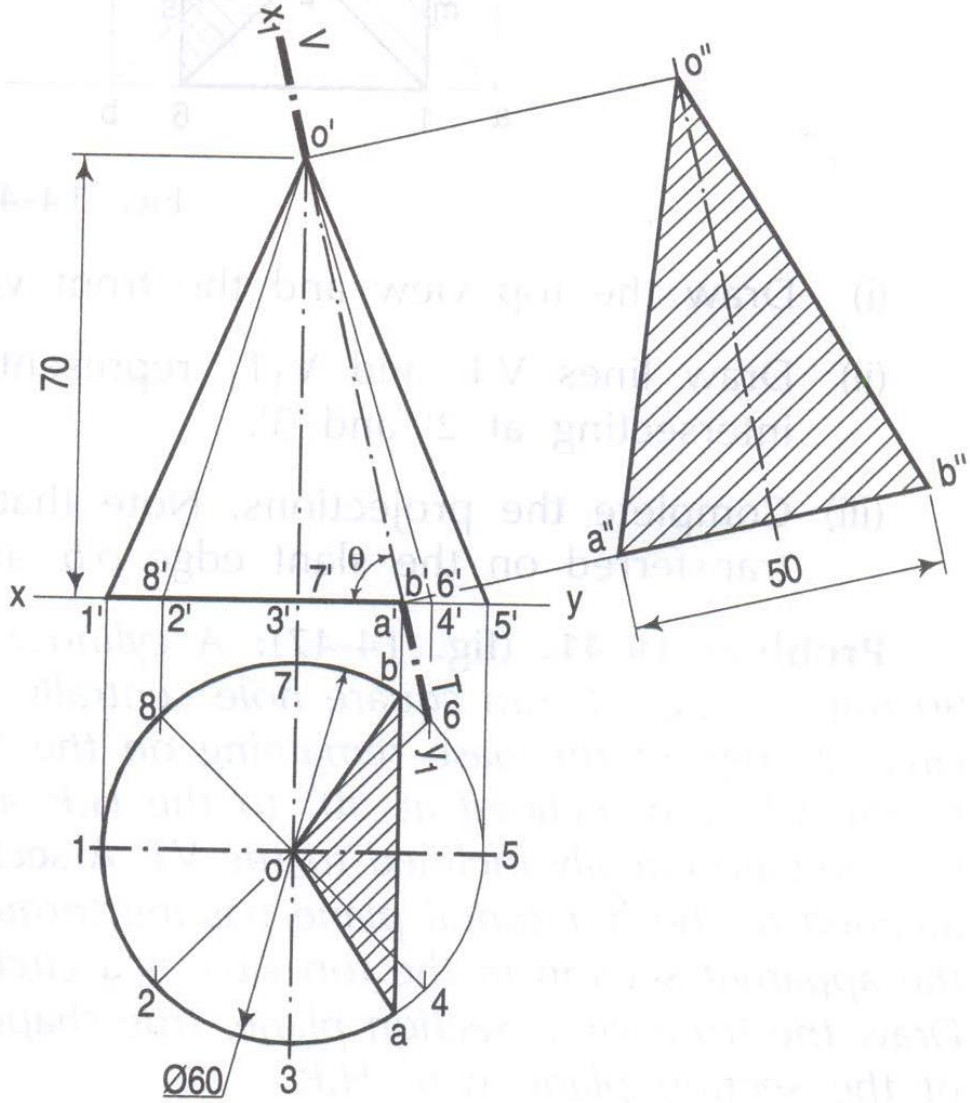
Example-39 (Solved Pb. 14-39, pp. 343)

A cone, diameter of the base 60 mm and axis 70 mm long is resting on its base on the HP. It is cut by an AIP so that the true shape of the section is an isosceles triangle having 50 mm base. Draw the top view, the front view and the true shape of the section.

Note: An indirect way of specifying the inclination of the sectioning plane.

Sections of Solids

Example-39 (Solved Pb. 14-39, pp. 343) …



Sections of Solids

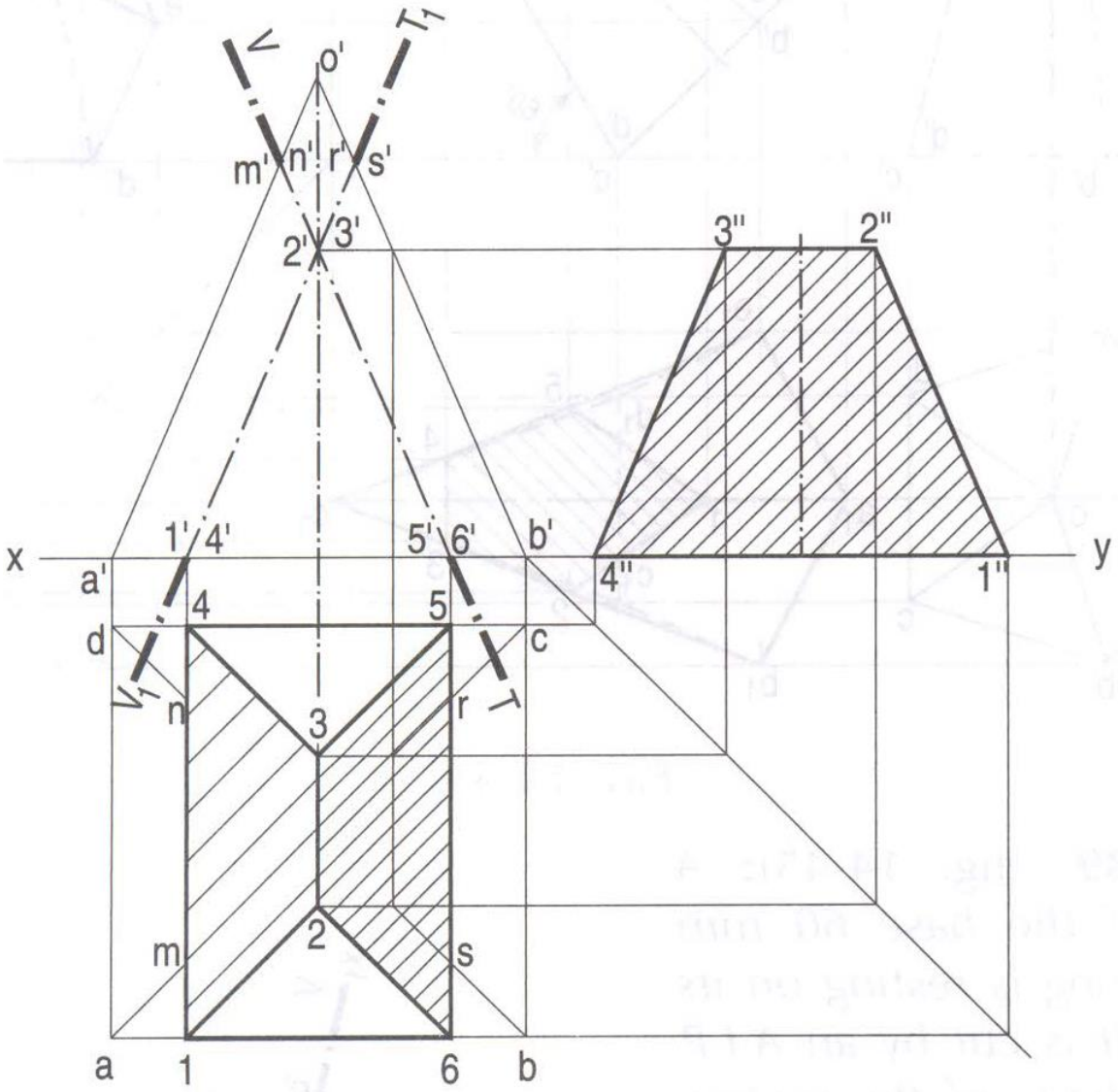
Example-40 (Solved Pb. 14-40, pp. 344)

A square pyramid of 60 mm side of base and 70 mm length of axis is resting on its base on the HP, having a side of base perpendicular to the VP. It is cut by two cutting planes. One is parallel to its extreme right face and 10 mm away from it while the other is parallel to the extreme left face by the same distance. Both the cutting planes intersect each other on the axis of the pyramid. Draw the sectional top view, front view and the left hand side view.

Note: A case of 2 cutting planes.

Sections of Solids

Example-40 (Solved Pb. 14-40, pp. 344) …



Sections of Solids

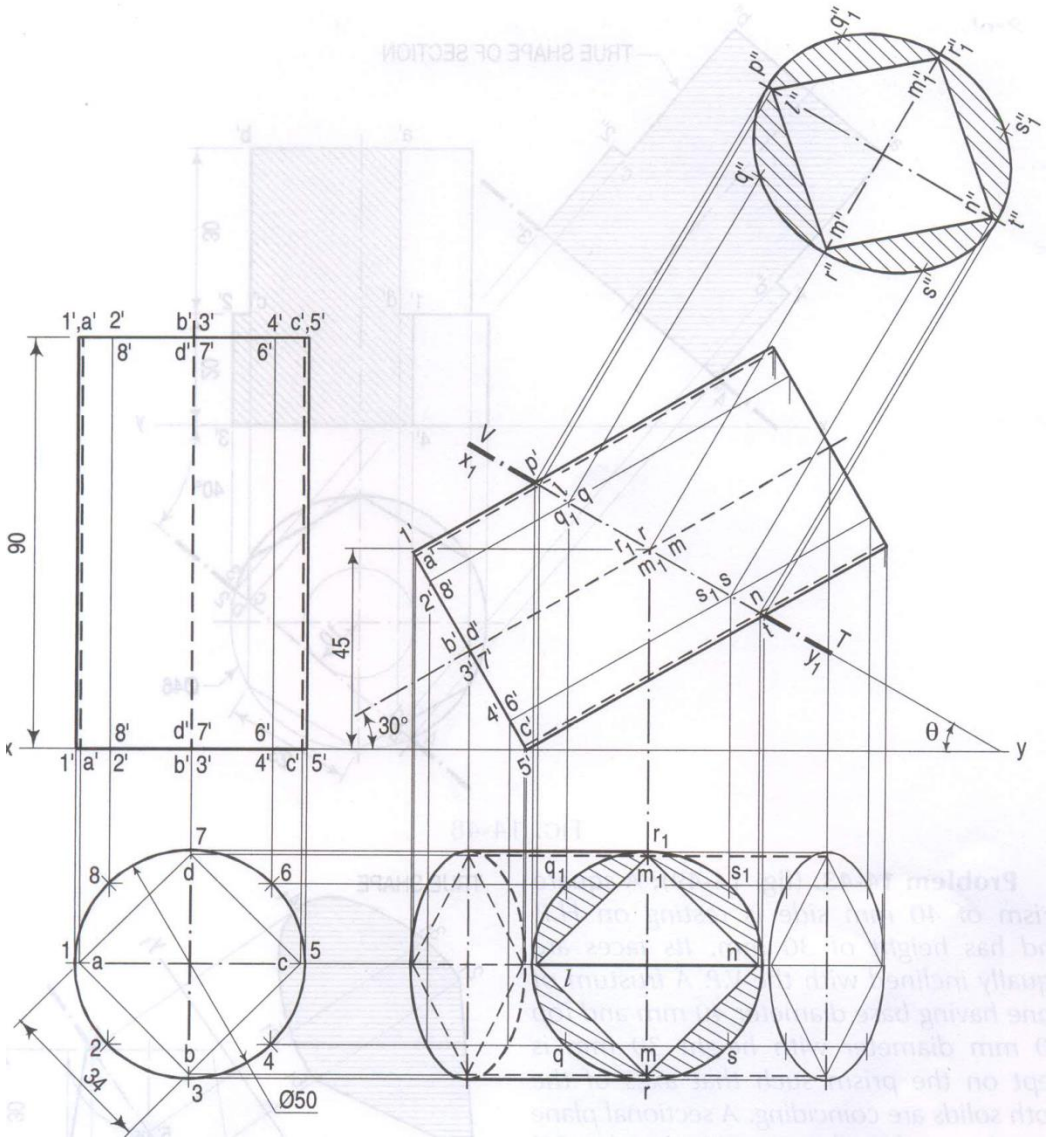
Example-41 (Solved Pb. 14-41, pp. 344)

A cylinder of diameter 50 mm and axial height 90 mm having 34 mm square hole centrally along the axis, rest on a point on the circular edge of the base remaining on the HP. The axis of the cylinder is parallel to the VP and inclined at 30° to the HP and the rectangular face of the square hole remains equally inclined to the VP. A section plane perpendicular to the VP and inclined to the horizontal plane passing through the mid-point of the axis, such that the apparent section in the top view is a circle of 50mm diameter cuts the cylinder. Draw the front view, section plane, true shape of the section and find the inclination of the section plane with the HP.

Note: Routine problem with the inclination of the sectioning plane given differently and indirectly.

Sections of Solids

Example-41 (Solved Pb. 14-41, pp. 344) …



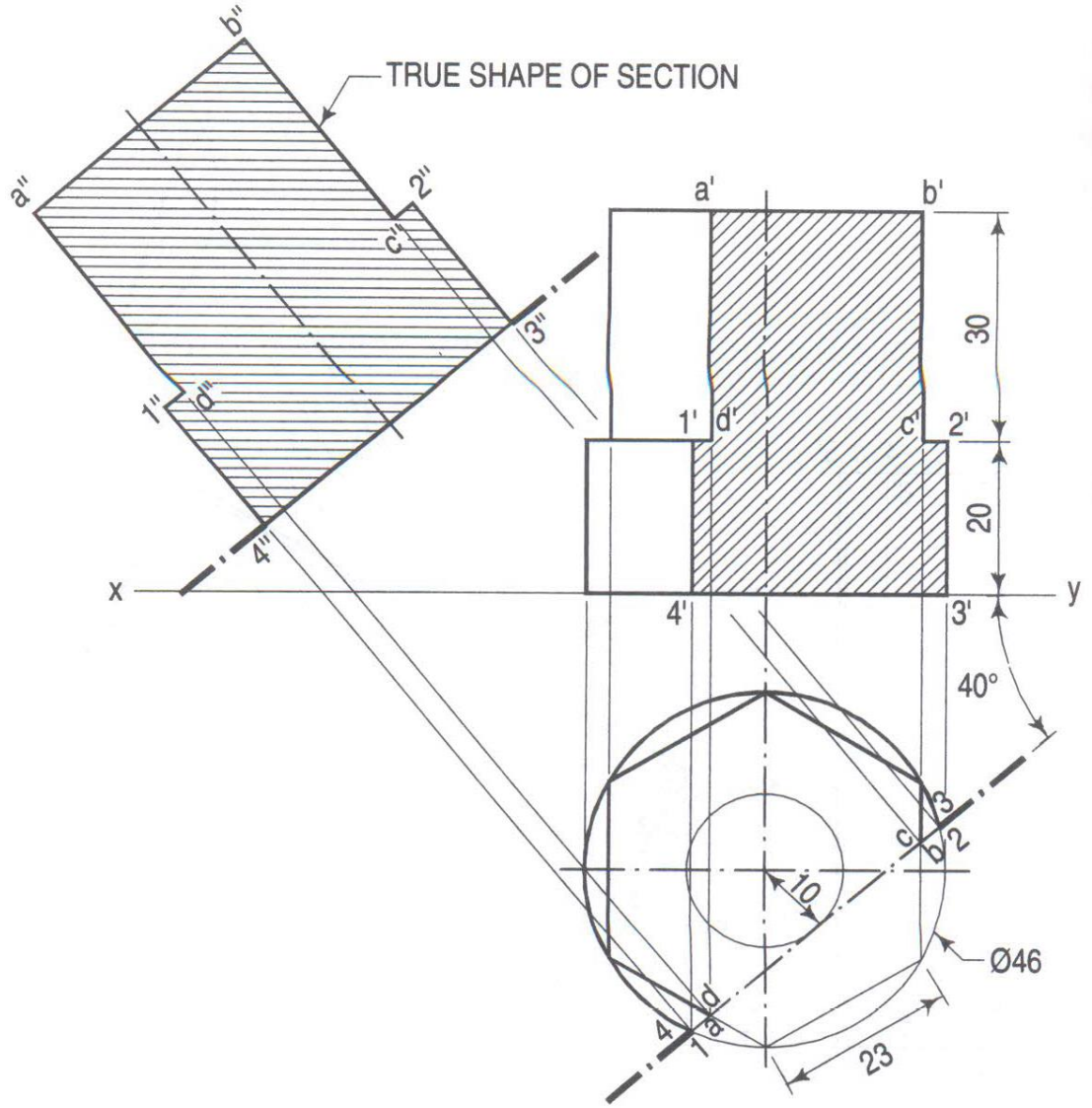
Sections of Solids

Example-42 (Solved Pb. 14-42, pp. 346)

A cylindrical disk of 46 mm diameter is resting on the HP and has height of 20 mm. A hexagonal prism of side 23 mm and height of 30 mm is resting on the disc such that their axes are in one line and its faces are equally inclined with the VP. It is cut by the auxiliary plane, offset 10 mm in front of the centre and is inclined at 40° with xy. Draw the projection of combined solids and true shape of the section.

Sections of Solids

Example-42 (Solved Pb. 14-42, pp. 346) …



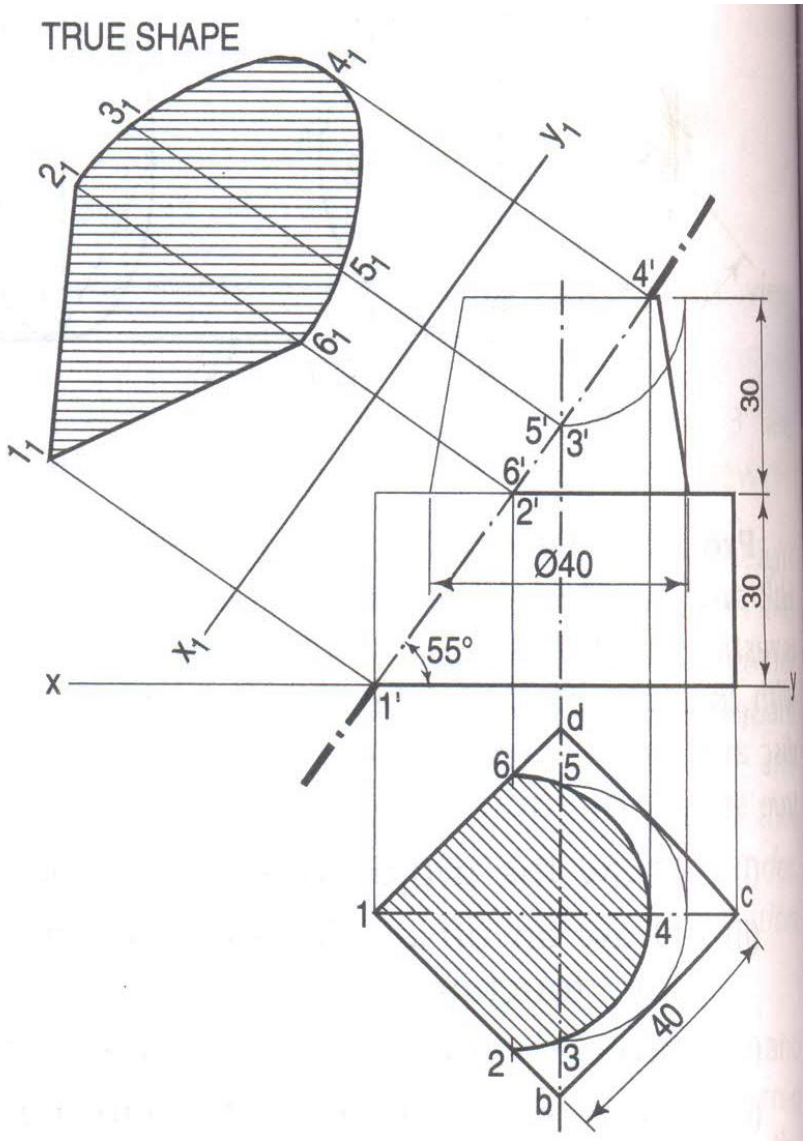
Sections of Solids

Example-43 (Solved Pb. 14-43, pp. 346)

A square prism of 40 mm side is resting on HP and has height of 30 mm. Its faces are equally inclined with the VP. A frustum of the cone having base diameter 40 mm and top diameter 30 mm with height 30 mm is kept on the prism such that axes of the both solids are coinciding. A sectional plane cuts the combined axes and inclined at 55° with HP passes through left corners of the prism. Draw the front view and sectional top view. Draw also true-shape of the section.

Sections of Solids

Example-43 (Solved Pb. 14-43, pp. 346) …



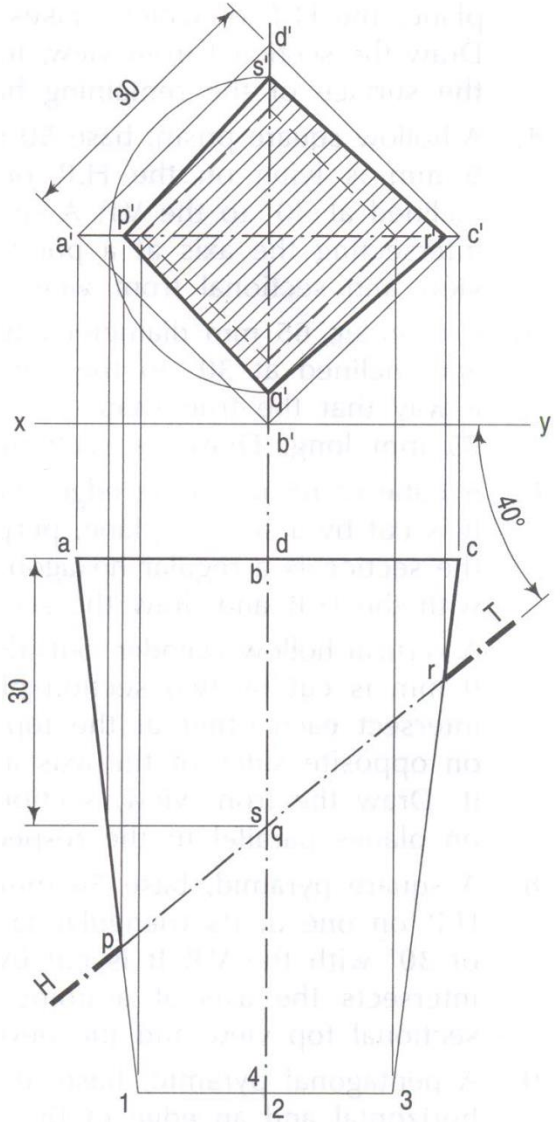
Sections of Solids

Example-44 (Solved Pb. 14-44, pp. 347)

A horizontal frustum of square pyramid having front square of 20 mm side and back square 30 mm at length of 60 mm has axis perpendicular to the VP and the side of square is inclined to 45° with HP. It is cut by section plane making 40° with VP and passing through a point on axis 30 mm from the surface of large square side. Draw the projections of the frustum.

Sections of Solids

Example-44 (Solved Pb. 14-44, pp. 347)



Conclusions

- Roughly work out all the problems given to you. Only if you come prepared, you will be able to complete all problems of the sheet in the drawing session.


Thank You!