

PROBLEM 14.12 A truncated cylinder is shown in Fig. 14.13(a). Develop its lateral surface.

Or

A cylinder of base 40 mm and height 60 is cut by a section plane which makes 45° with the HP at a distance of 40 mm from lower base. Draw the development for the lower part of the cylinder.

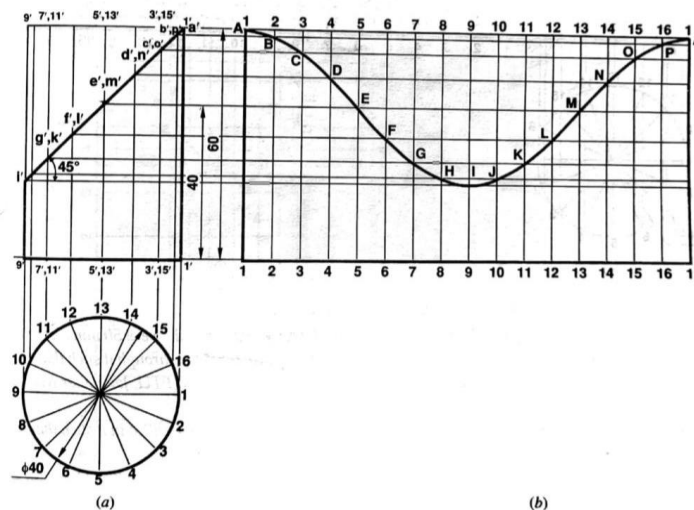


Fig. 14.13 Solution to problem 14.12

PROBLEM 14.13 Develop the lateral surface of the right circular cylinder cut at top and bottom, as sh in Fig. 14.14 (a) .

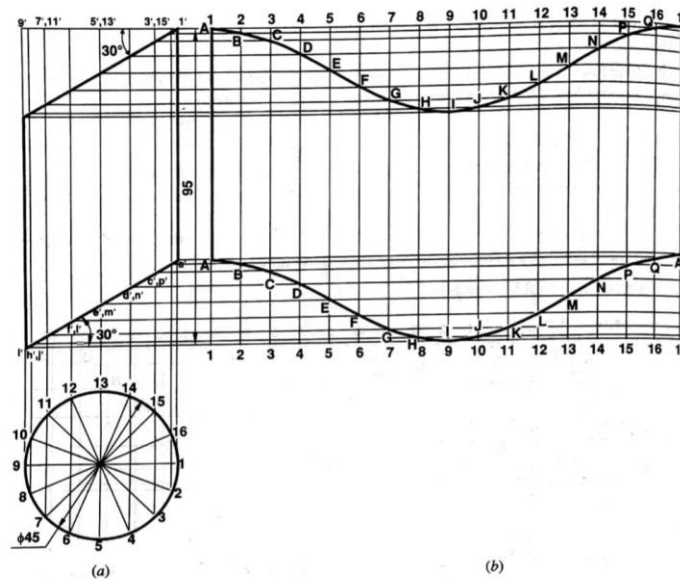


Fig. 14.14 Solution to problem 14.13

PROBLEM 14.14 Develop the circular pattern of a right circular cylindrical pipe of 50 mm diameter and 60 mm height. It has a horizontal circular hole of diameter 30 mm drilled centrally through it such that the axes of the hole and the cylinder are mutually perpendicular to each other.

or

A cylinder of diameter 50 mm and height 60 mm has a hole of diameter 30 mm drilled in it such that its axis intersects that of the cylinder at the middle at right angle. Draw the development.

PROBLEM 14.24 A right regular hexagonal pyramid, edge of 20 mm and height 40 mm, rests on its base in HP such that one of its base edges is parallel to the VP. Draw its projections and develop its lateral surface.

PROBLEM 14.28 A square pyramid, edge of base 30 mm and height 50 mm, resting on its base in HP. Two of its base edges are equally inclined to the VP. A section plane perpendicular to the VP and inclined to the HP at 30° cuts the pyramid, bisecting its axis. Draw its front view, sectional top view and develop the lateral surface of the truncated pyramid.

PROBLEM 14.38 Develop the surface of a pentagonal pyramid having its base edge 30 mm and axis 60 mm long.

PROBLEM 14.43 A Right circular cone, diameter of base 50 mm and height 60 mm, rests on its base in HP. A section plane perpendicular to the VP and parallel to the HP cuts the cone, bisecting its axis. Draw its view, sectional top view and develop the lateral surface of the remaining part of the cone.