WORKSHEET NO: 20

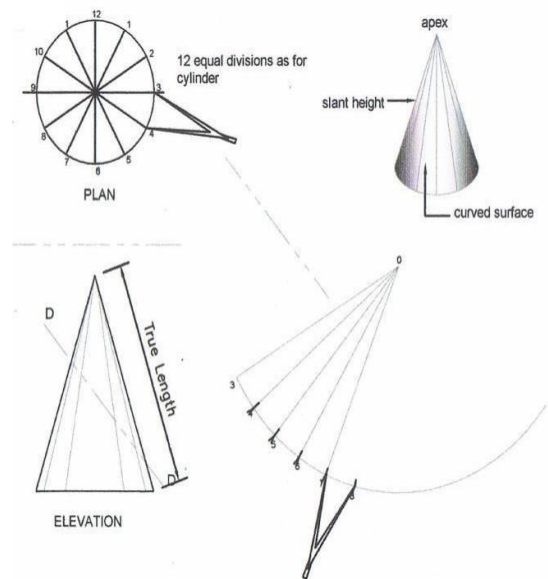| **Subject:** basic Technology	**Year/Level:** 10	
Topic: DEVELOPMENT		Date :11/10/2021
STRAND 5	GEOMETRY	

Learning Outcomes.

- OBJECTIVE: develop skills in geometrical projection of prisms.

- develop skills in geometrical projection of cylinders.

Development of a Cone and a Truncated Cone

The development of a cone is drawn using the **radial lines method**. This is illustrated in the diagrams shown on the right.

(a) The plan and elevation of the cone is given with the cutting plane put in its proper position.

(b) The plan of the cone is divided into 12 equal divisions.

(c) Identify the true length of the sloping edge on the elevation. **Note:** The cone is a good example of a solid which automatically showing the sloping edge on the elevation as the **TRUE LENGTH.**

(d) Using the true length as radius, draw an arc with O as centre.

(e) Step off 1/12 of the circumference of the plan on the circumference of the arc drawn in (d).
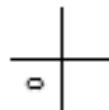
(f) The shape formed is the development of the full cone.
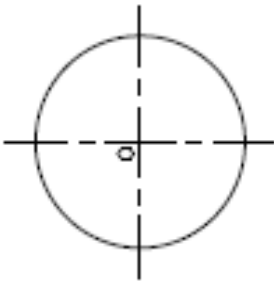
EXERCISE 6.

GIVEN   THE PLAN OF A CYLINDER (AXIS = 50mm) DRAWN IN FIRST ANGLE ORTHOGRAPHIC
             PROJECTION

REQUIRED:
        A.   COMPLETE THE PLAN
        B.   COMPLETE THE FRONT ELEVATION
        C.   DRAW THE FULL SURFACE DEVELOPMENT
        D.   LABEL ALL THE DRAWINGS.

NOTE: DO NOT ERASE THE CONSTRUCTION LINES

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