

SHEET 1

**PENANG SANGAM HIGH SCHOOL
P. O. BOX 44, RAKIRAKI**

LESSON NOTES - 9

SCHOOL: PENANG SANGAM HIGH

SUBJECT: TECHNICAL DRAWING

YEAR/ LEVEL: 13 A/B

Strand	TD13.1 GEOMETRY
Sub - Strand	TD13.1.3 Cams
Content Learning Outcome	TD13.1.3.1 Develop the profile of cams offset from the follower for various types of motions.

Cams

Learning Outcomes

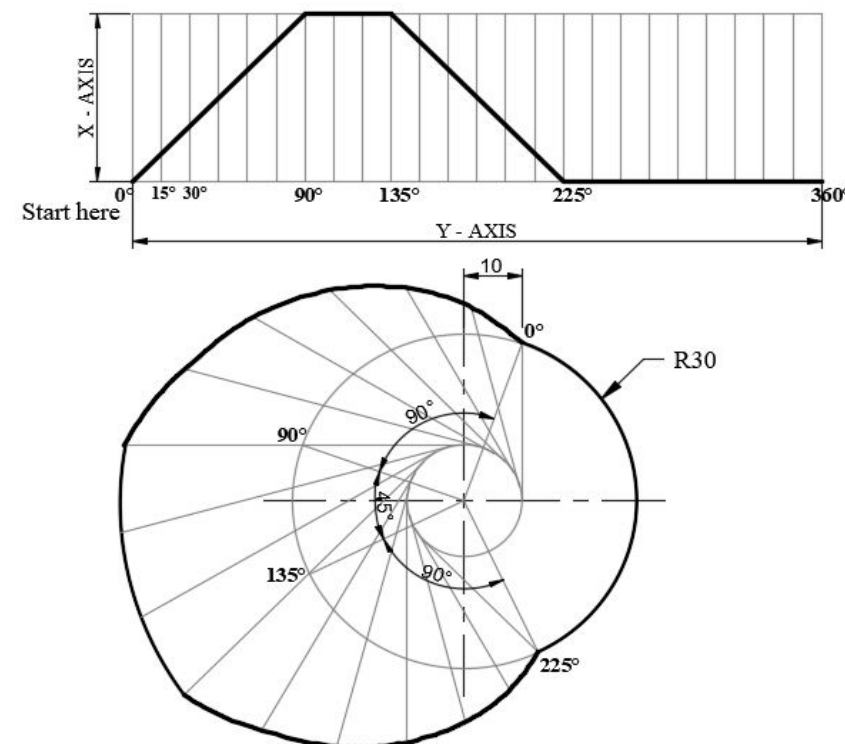
By the end of this topic, students will:

- define cam.
- construct the profile of a cam and displacement graph offset to various followers for one revolution for one, two or more types of motions.
- interpret the profile of the cam and its displacement graph.

Worked Example:

Draw the cam profile for following conditions:

outstroke = 90° of cam rotation with uniform velocity, dwell for next 45° of the cam rotation
return stroke = 90° of cam rotation with uniform velocity, dwell for rest of the period
minimum radius of cam is 30mm, offset = 10mm on the right, lift or stroke of the follower is 30mm



QUESTION 1

Draw the cam profile and the performance graph for following conditions:

DATA

outstroke = 90° of cam rotation with uniform velocity, dwell for next 45° of the cam rotation,
return stroke = 90° of cam rotation with uniform velocity
dwell for rest of the period, minimum radius of cam is 30mm, offset = 15mm on the right,
lift or stroke of the follower is 30mm

NOTE:

Performance Graph Scale
X axis - 5mm = 15°
Y axis - 1:1

Start here 0°

