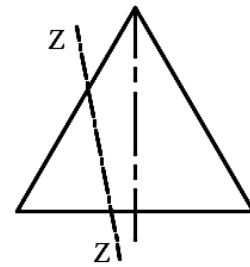**PENANG SANGAM HIGH SCHOOL**
YEAR 11
TECHNICAL DRAWING

WORKSHEET – 5

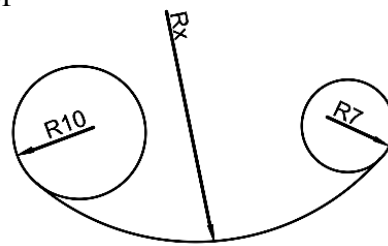## QUESTION 1   MULTIPLE CHOICE

1. Given the elevation of a cone cut by a cutting plane Z - Z, what would be the name of the shape produced ?

    A. Circle
    B. Ellipse
    C. Parabola
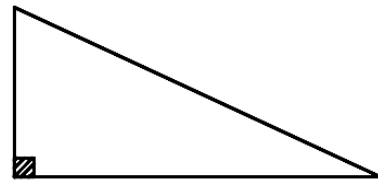   D. Hyperbola

2. To find the centre of the tangential arc (Rx), which of the following equations will be used?

    A. Rx - R10, Rx - R7
    B. Rx + R10, Rx + R7
    C. Rx - R10, Rx + R7
    D. Rx + R10, Rx - R7

3. The triangle on shown on the right is a (an)

    A. scalene triangle
    B. isosceles triangle
    C. equilateral triangle
    D. right angled triangle

4. Name the conic section formed with the ratio of eccentricity as unity.

    A. circle
    B. ellipse
    C. parabola
    D. hyperbola
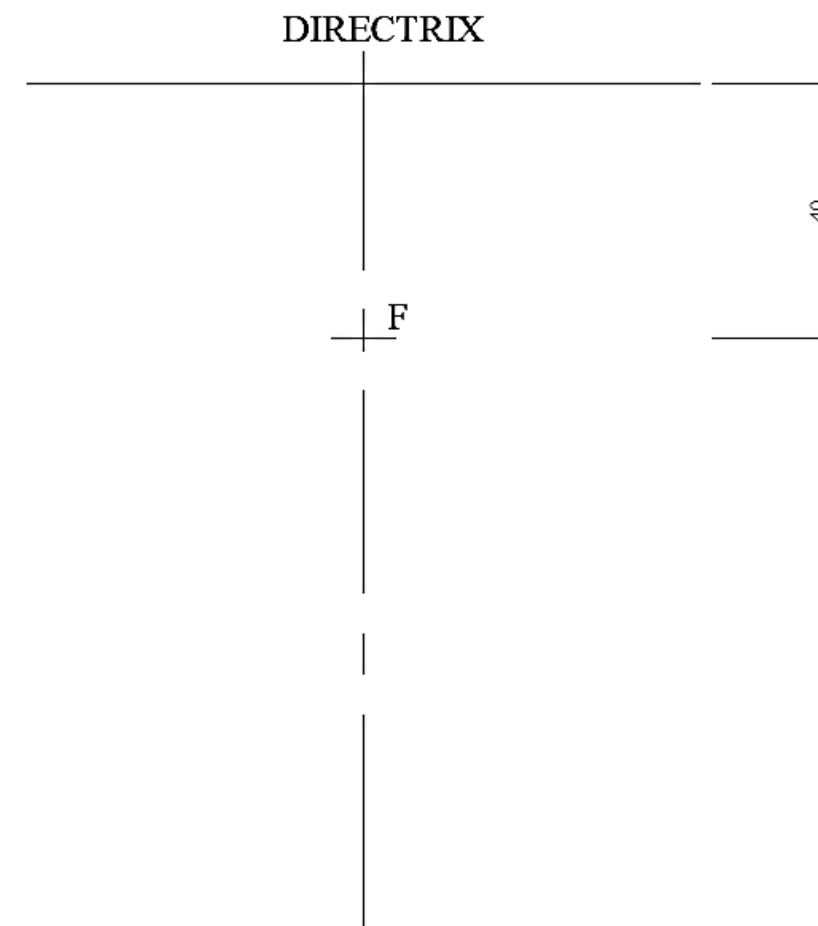
5. The first step in designing is to outline the need for designing. This is known as

    A. design brief
    B. specification
    C. design research
    D. design situation

QUESTION 2

Given: The Axis, Directrix and the Focus.

Reqired: Locate the Vertex and draw a Parabolic curve.
                Calculate the ratio of Eccentricityof the curve.

DIRECTRIX

40

F

NOTE

Please note that the **dimensions** on the drawing are given for reference purpose i.e. students can use the given dimensions and redraw on a separate worksheet **if not** then the students can directly do the solution on **this same** drawing question/ sheet.
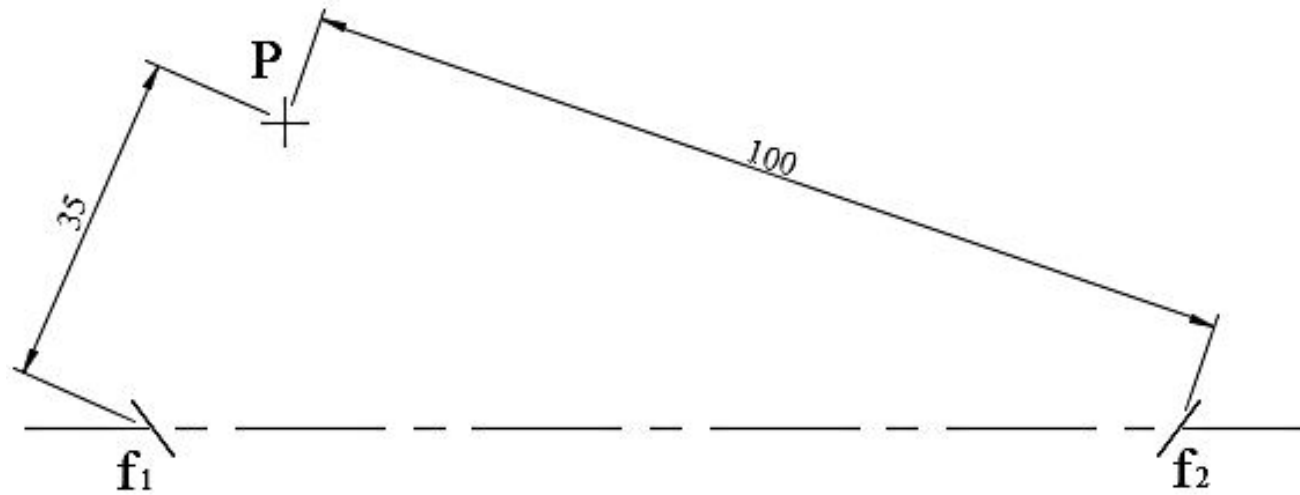
QUESTION 3   **[10 marks]**

Given:

Focal points f1, f2 and a point 'P'.

Required:

To locate the major and the minor axis.   **(5 marks)**
To construct the ellipse   **(5 marks)**
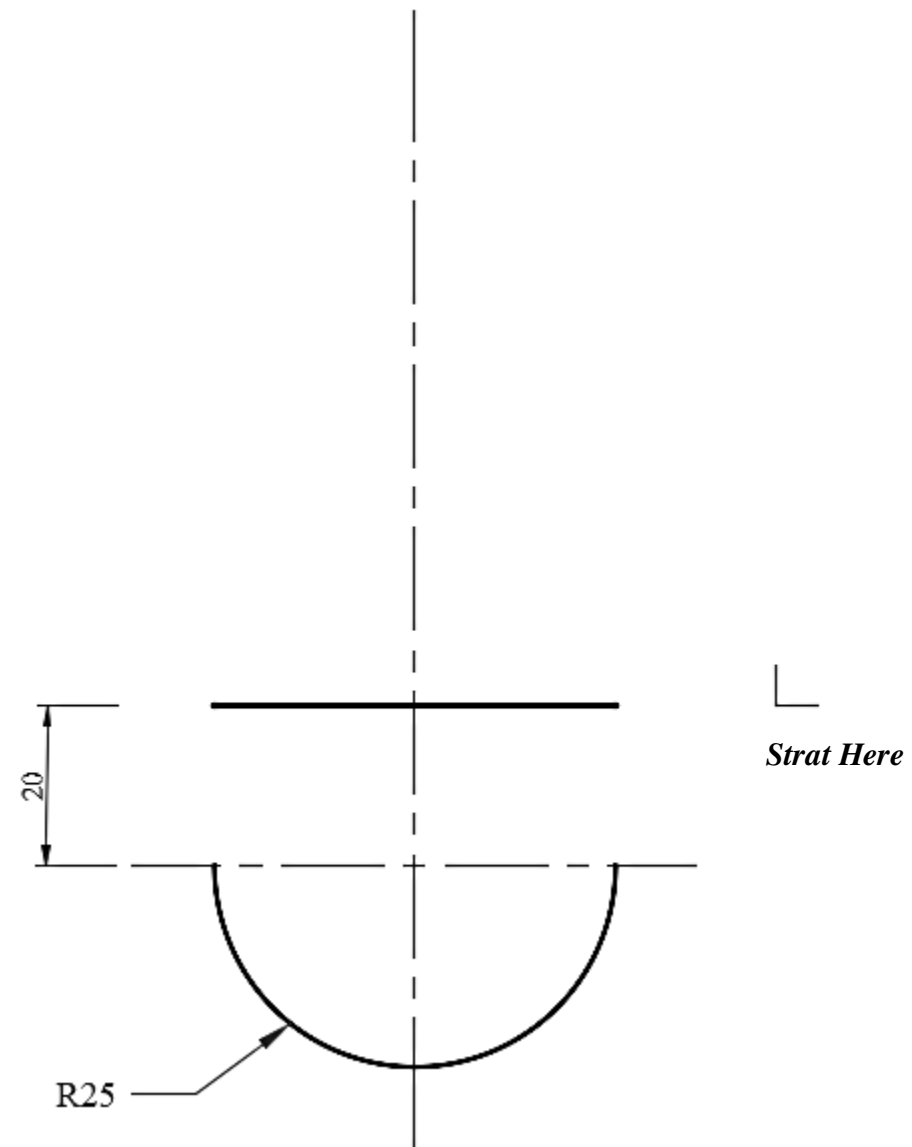
QUESTION 4

Given: The plan and the center line.

Required:

(i)   To construct a right hand helix for 1 revolution with pitch of 80mm.

           State the pitch angle of the helix.

           _____

Strat Here

NOTE

Please note that the **dimensions** on the drawing are given for reference purpose i.e. students can use the given dimensions and redraw on a separate worksheet **if not** then the students can directly do the solution on **this same** drawing question/ sheet.