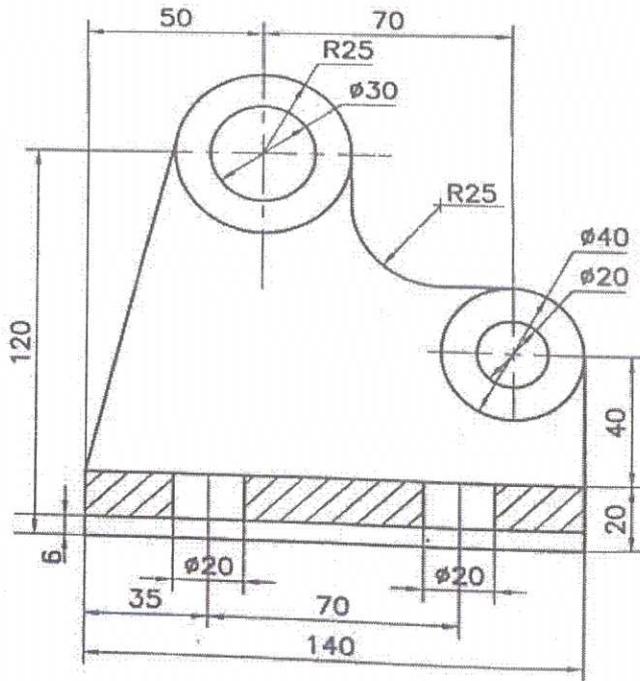


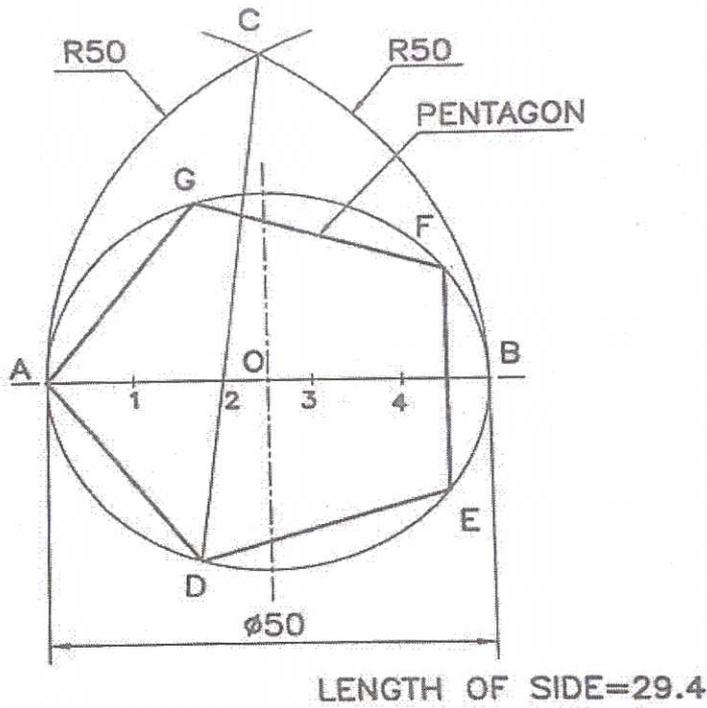
II.



Redraw
-4
Dimension
-6

10

III.



Construction
-7
Dimension
-3

10

(Construct by any one method)

IV.

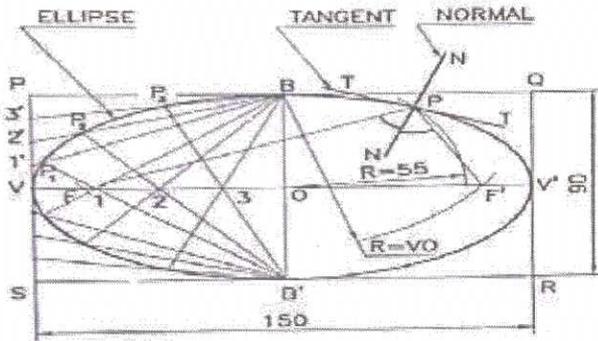


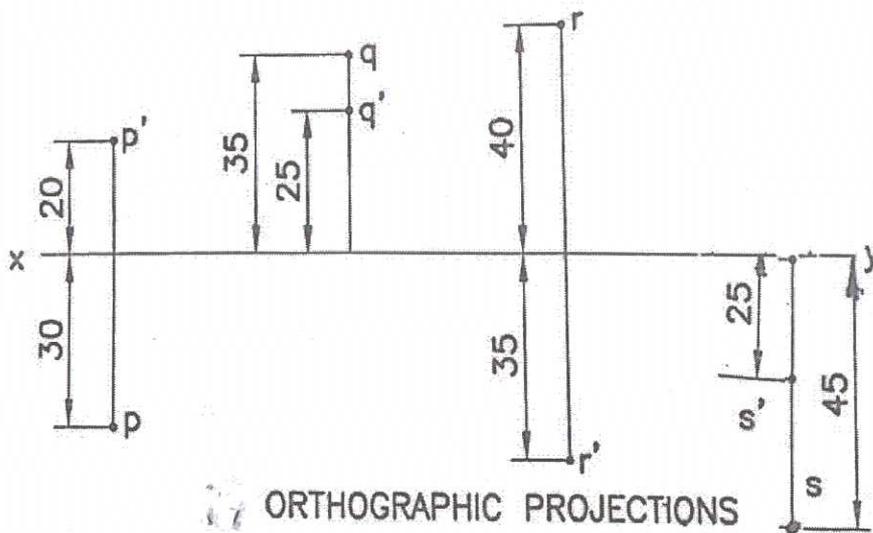
Fig. 3.11 Construction of an ellipse (Rectangular or oblong method)

1. Draw the major axis VV' of length 150 mm and minor axis BB' of length 90 mm perpendicular to each other and bisecting at point O .
2. Draw a rectangle $PQRS$ passing through the points V, B, V' and B' .
3. Divide VO and VP into the same number of equal parts. (Say, 4) and mark the divisions as 1, 2 and 3 and 1', 2' and 3' as shown.
4. Join B with 1', 2' and 3'.
5. Join B' with 1, 2 and 3 and extend them to meet the lines $B1', B2'$ and $B3'$ at P_1, P_2 and P_3 , respectively.
6. Similarly obtain points on the other three quadrants.
7. Draw a smooth curve passing through all these points. This curve is the required ellipse.

Construction
-7
Dimension
-3

10

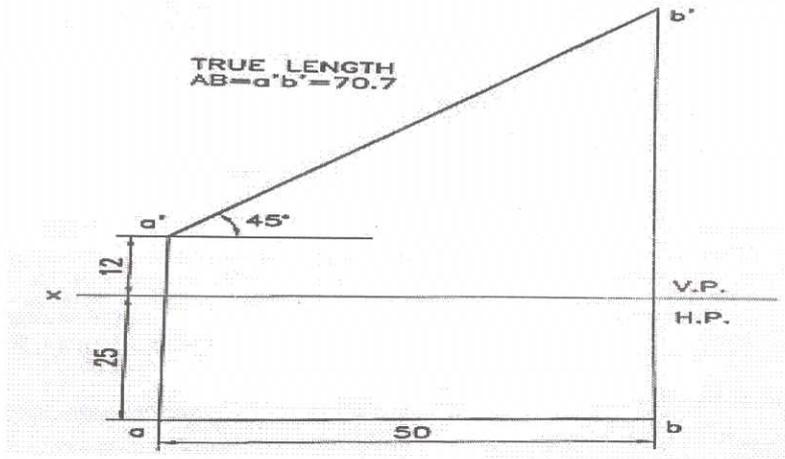
V.



2.5*4

10

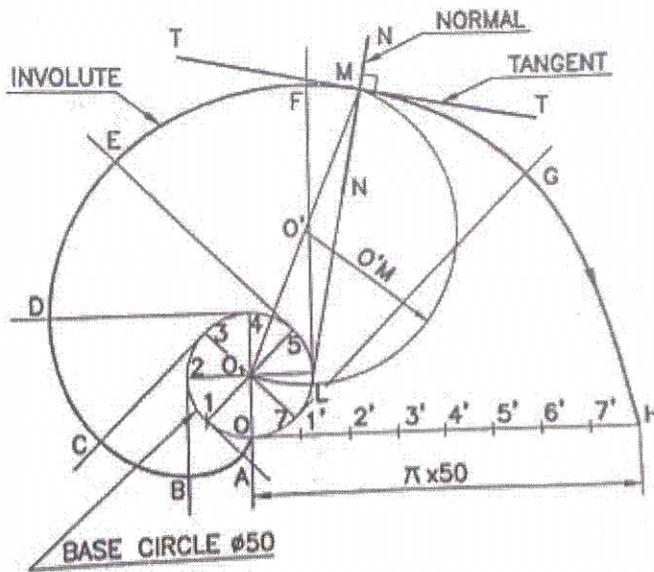
VI.



FV-4
 TV-4
 Dimension
 -2

10

VII.



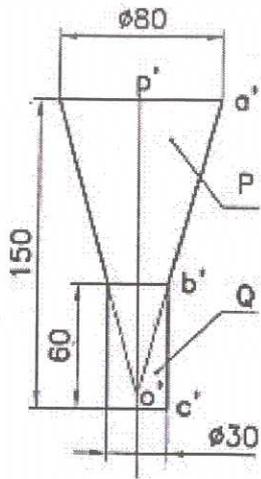
Construction
 -7
 Marking &
 Dimension
 -3

10

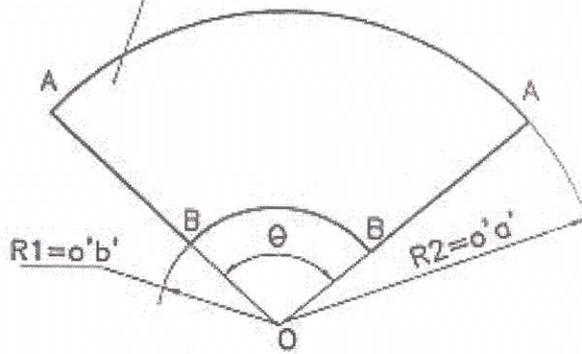
VIII

TRUE LENGTHS:

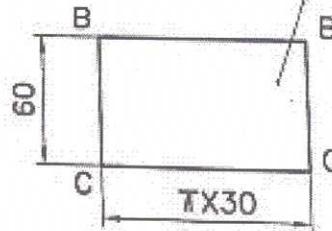
$R1 = o'b'$
 $R2 = o'a'$



DEVELOPMENT OF CONE, P



DEVELOPMENT OF CYLINDER, Q



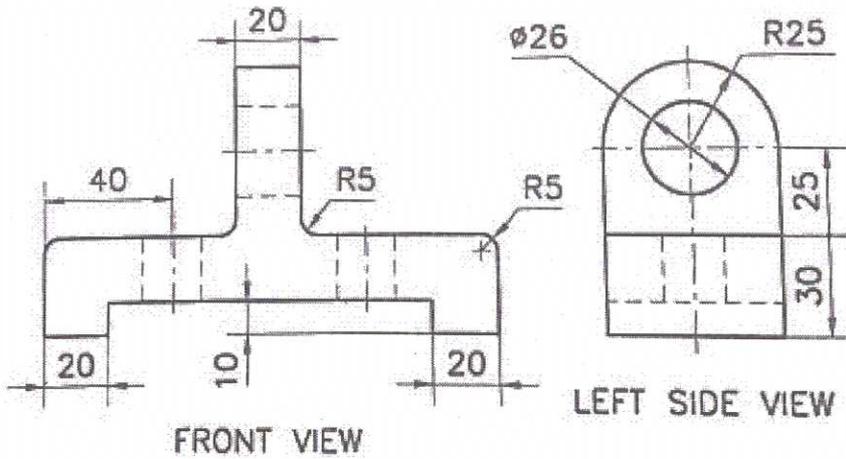
$\theta = \frac{360 \times R}{L}$

Equation & calculation-2

Development & dimension
 *view-3
 *cone-3
 *cylinder-2

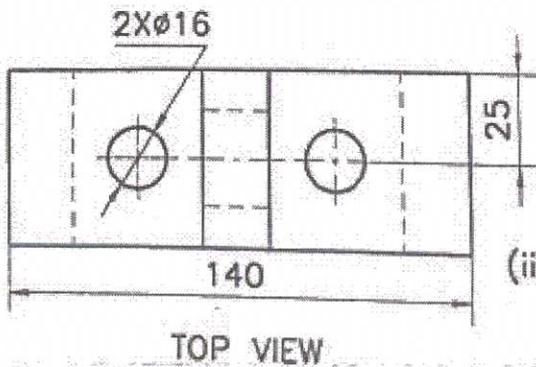
10

IX.



FRONT VIEW

LEFT SIDE VIEW



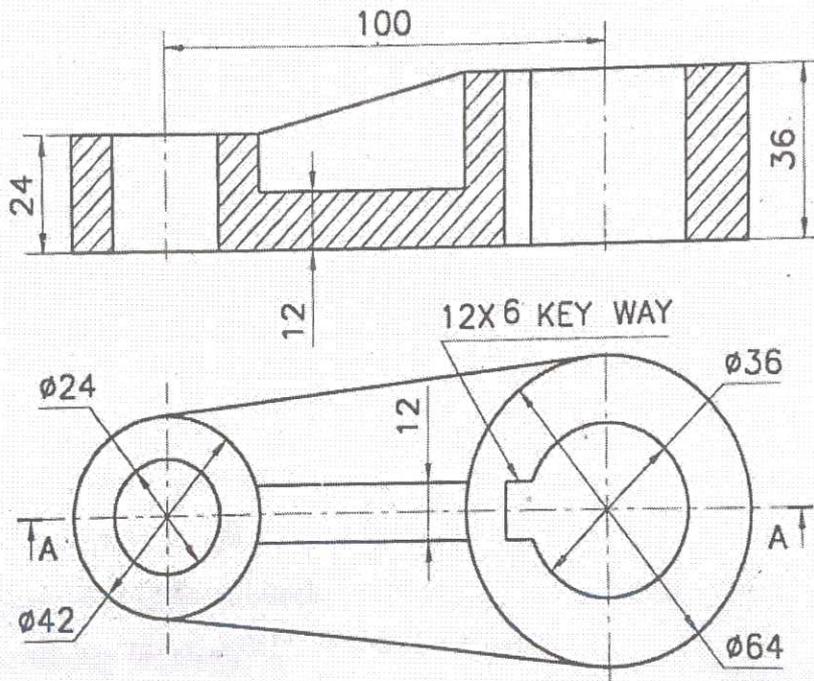
TOP VIEW

(ii) ORTHOGRAPHIC VIEWS

FV-8
 TV-8
 SV-4
 (with dimension)

20

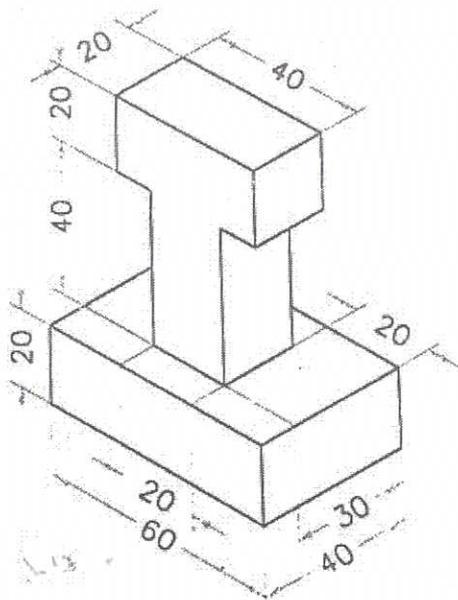
X.



FV-9
TV-8
Dimension
-3

20

XI.



Angle marking-
3
Construction
-14
Dimension
-3

20