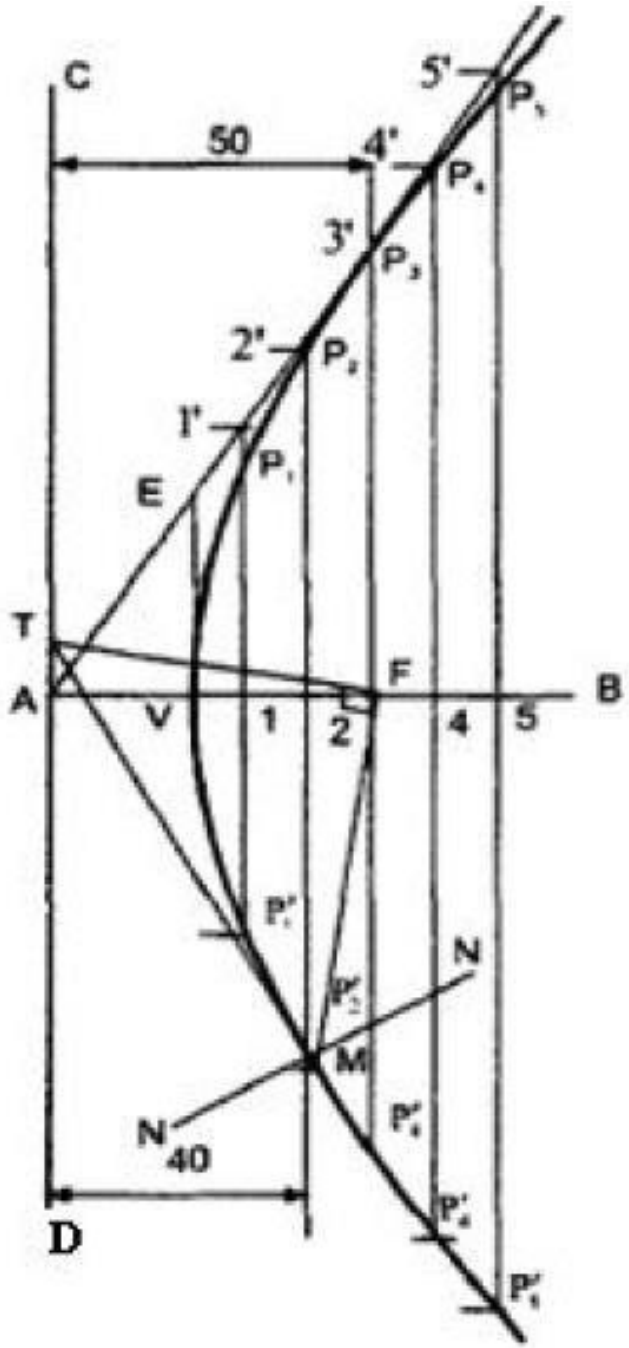
I CONSTRUCTION OF HYPERBOLA BY ECCENTRICITY METHOD

EXAMPLE 1

To draw a hyperbola with the distance of the focus from the directrix at 50mm and e=3/2 (Eccentricity method)Construction:

1. Draw the directrix CD and the axis AB.
2. Mark the focus F on AB and 65mm from A.
3. Divide AF into 5 equal divisions and mark V the vertex, on the second division from A.
4. Draw a line VE perpendicular to AB such that VE=VF. Join A and E.
5. Mark any point 1 on the axis and through it, draw a perpendicular to meet AE produced at 1'.
6. With centre F and radius equal to 1-1', draw arcs intersecting the perpendicular through 1 at P1 and P'1.
7. Similarly mark a number of points 2, 3 etc and obtain points P2 and P'2, etc.


C
5'
P5
50
4'
P4
3'
P3
2'
P2
1'
P1
E
T
A
V
1
2
F
4
5
B
P'1
N
P'2
M
N
40
P'3
P'4
P'5
D