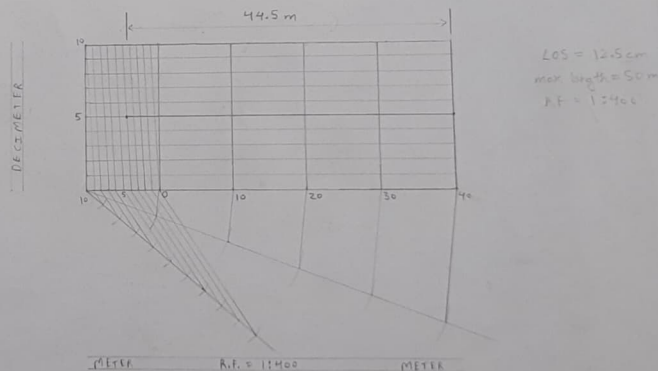
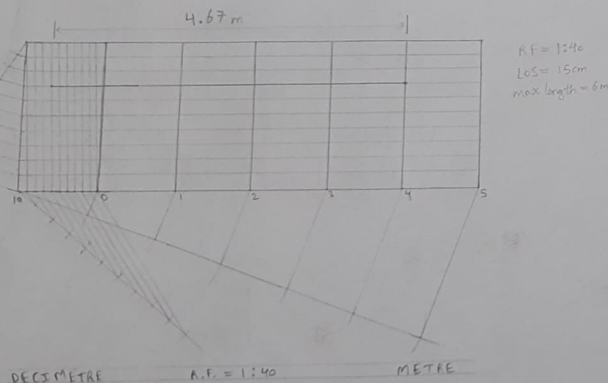
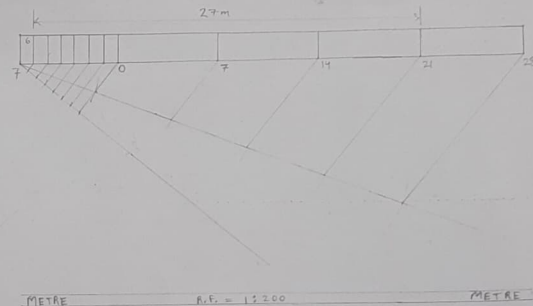
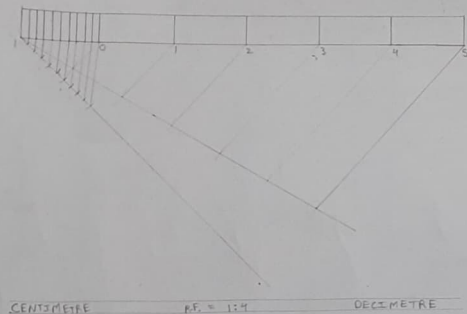


Q4.13 (pg 4.8, pdf pg 111)

Sub 4.7
Q 4.13



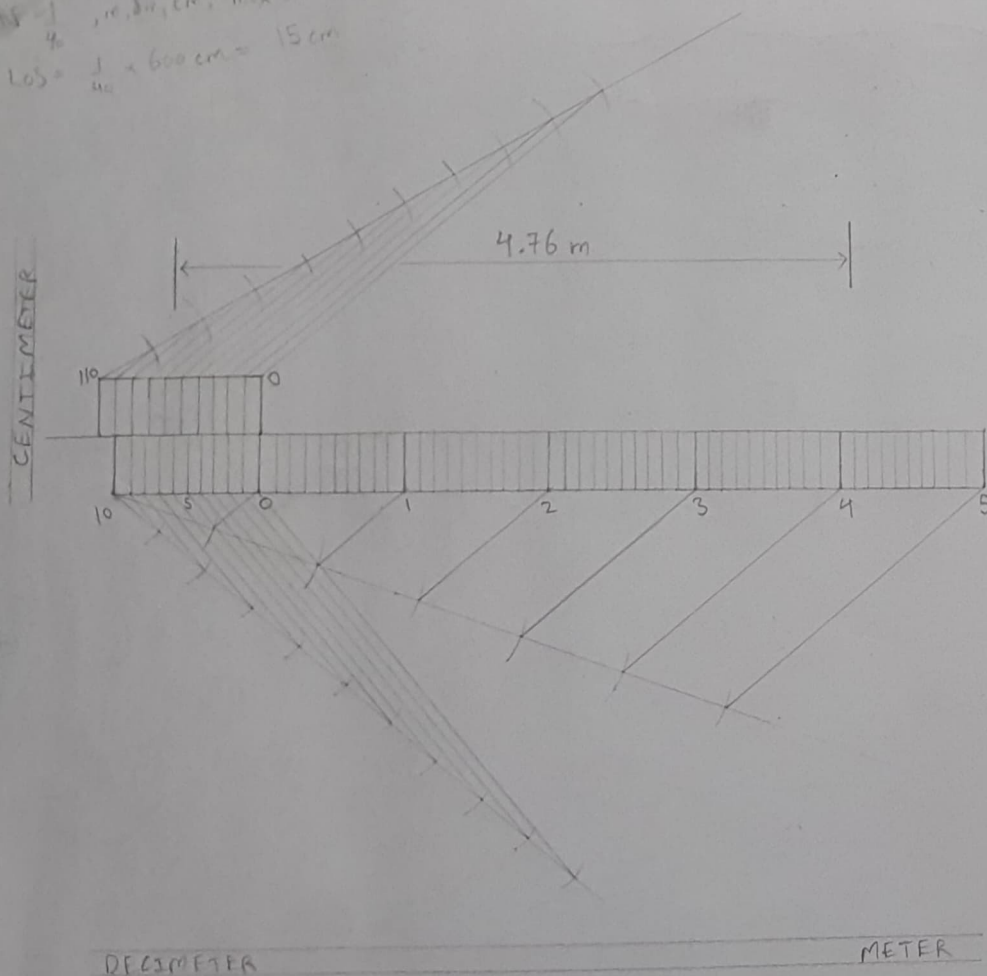
Q4.16 (Pg 4.10, Pdf pg 113)

Q4.17 (Pg 4.11, Pdf pg 114)

Vernier Scale

Solution
 1st page
 97 4.34

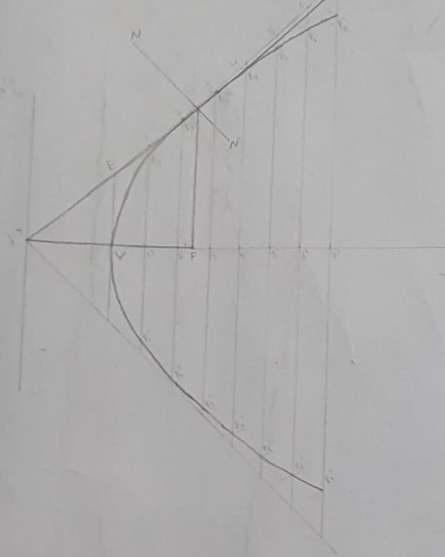
reducing, max len = 6m, Mark 4.76m = $4.1 + 0.66$
 $\frac{1}{40} \times 600 \text{ cm} = 15 \text{ cm}$



**Q4.34 (Pg 4.25, Pdf pg 128,
 Mark 5.76m)**

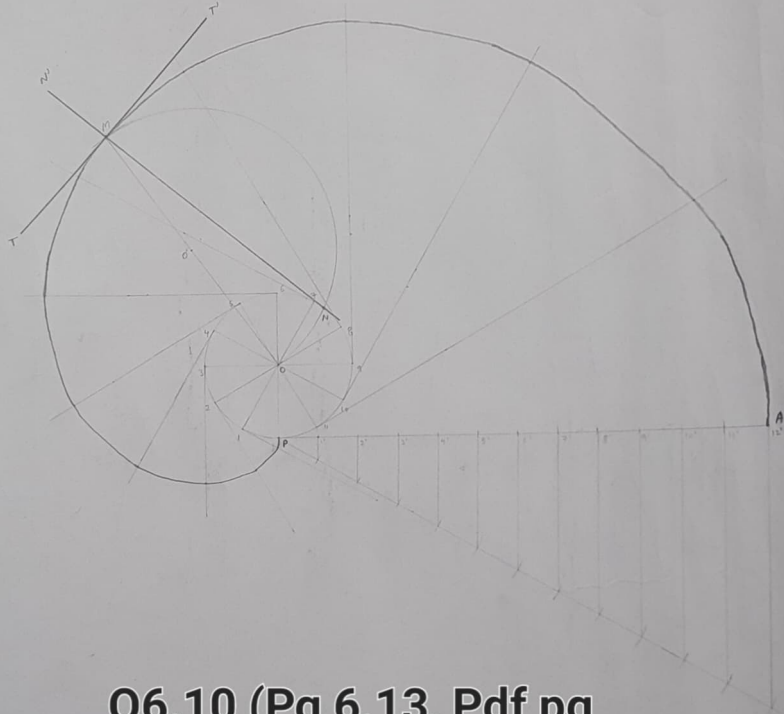
Conic Sections (Parabola) & Special Curves (Involute)

Q5.9 Draw a parabola when the distance b/w its focus & directrix is 50 mm, also draw a tangent & normal at a point distance 70 mm from directrix.



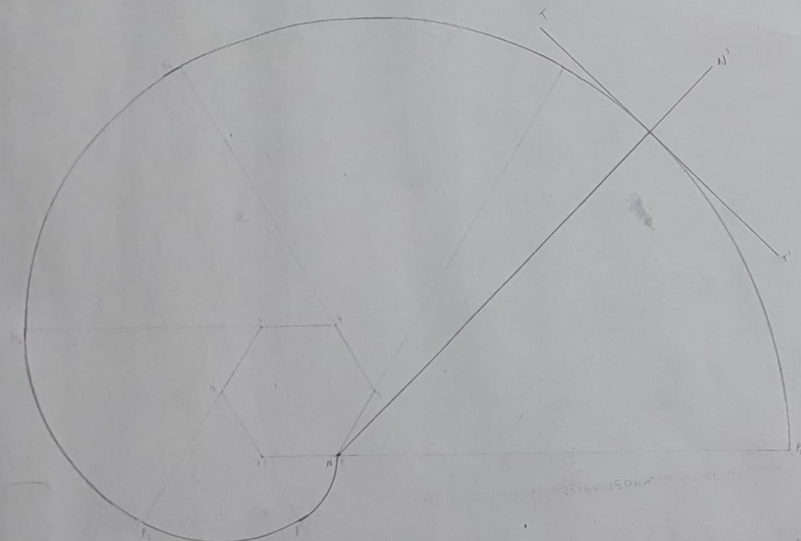
Q5.9 (Pg 5.15, Pdf Pg 154)

Q6.10 Draw an involute of a circle 50 mm diameter. Draw tangent & normal on the circle at a point 70 mm from the centre of circle.



Q6.10 (Pg 6.13, Pdf pg 191)

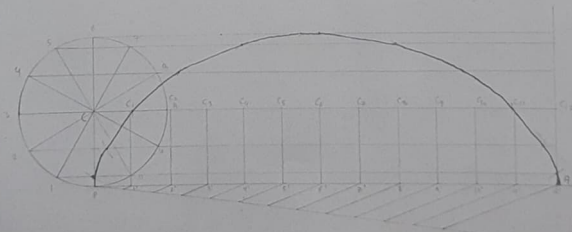
Q6.11 Draw the profile of a cylinder of diameter 50mm.



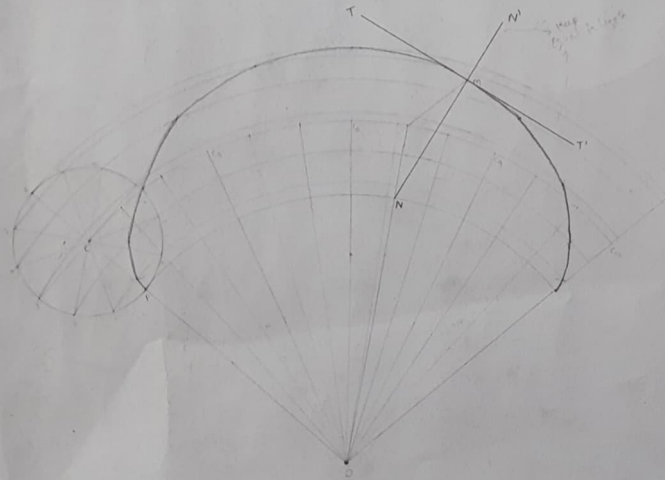
Q6.1 (Pg 6.2, Pdf pg 180)

Q6.1 Draw a cycloid for one complete revolution of a circle having a 50mm diameter. Draw tangent and normal to the curve at a point at distance 35mm above base line.

Q6.11 (Pg 6.14, Pdf pg 192)



Q6.2 (Pg 6.3, Pdf pg 181)



11/10/13

Q6.2) From an epicycloid of a circle of diameter 50 mm which rolls inside a circle of diameter 150 mm for one revolution. Also, draw a tangent and a normal to the epicycloid at a point 135 mm from centre of directing circle.

$$R = \frac{r}{2} \times 360^\circ = \frac{25}{2} \times 360^\circ = 180^\circ$$

$$r = 25 \text{ mm}$$

$$R = 180^\circ$$

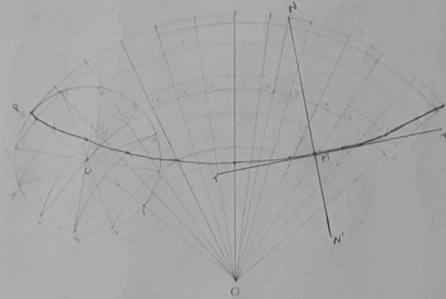
Q6.3) From an epicycloid of a circle of diameter 50 mm which rolls inside a circle of diameter 150 mm for one revolution. Also, draw a tangent and a normal to the epicycloid at a point 135 mm from centre of directing circle.

$$R = \frac{r}{2} \times 360^\circ = \frac{25}{2} \times 360^\circ = 180^\circ$$

$$r = 25 \text{ mm}$$

$$R = 180^\circ$$

Q6.3 (Pg 6.4, Pdf pg 182)

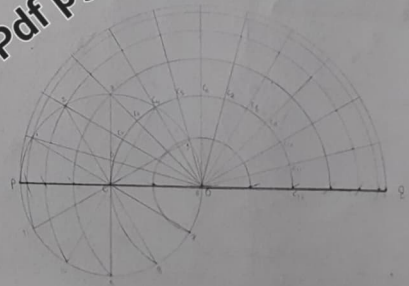


11/10/13

Q6.3) Construct a hypocycloid taking the diameter of generating circle and radius of directing circle as 50 mm.

$$\theta = \frac{r}{R} \times 360^\circ = \frac{25}{50} \times 360^\circ = 180^\circ$$

Q6.18 (Pg 6.22, Pdf pg 200)



A hand-drawn geometric diagram on a circular grid. The diagram features a central point labeled 'O'. Concentric circles are drawn around 'O'. Radial lines extend from 'O' to the outermost circle, labeled with letters A through Z. A complex curve is drawn, starting from the left side, passing through the center, and ending on the right side. The curve has multiple lobes and is labeled with letters A through Z. The diagram is a technical drawing, likely a geometric construction or a map of a celestial body.

When the diameters of rolling & disceasing circles are equal, the angle subtended by the rolling circle at the centre of disceasing circle is 360° and the epicycloid becomes a Cardioid.

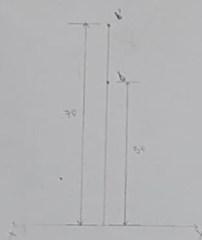
Q6.17 (Pg 6.21, Pdf Pg 199)

Projection of Point & Line

Q1) 20 mm above HP, 50 mm behind VP.



Q2) 70 mm above HP, 50 mm behind VP.



Q3) 70 mm below HP, 50 mm behind VP.



Q4) 70 mm below HP & 50 mm in front of VP.

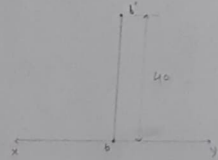


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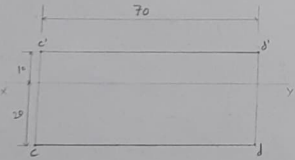
Q5) 30 mm below HP, 10 mm in front of VP.



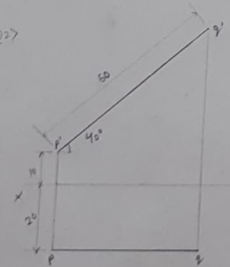
Q6) In HP, 40 mm behind VP.



Q1)



Q2)



Q2)

Q9.1 (Pg 9.2, Pdf 279)
Q9.1 50 mm long line PQ || to both HP & VP. 25 mm in front of VP & 60 mm above HP.

Q9.1 (Pg 9.2, Pdf 279)

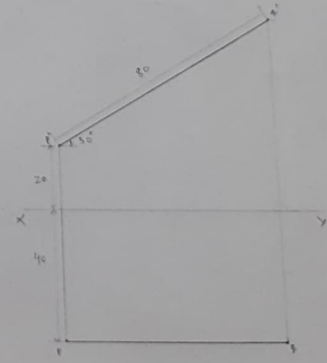
Q9.2 (Pg 9.3, Pdf 280)
Q9.2 60 mm long line PQ, end P 20 mm above HP & 40 mm in front of VP.



Q9.3 (Pg 9.4, Pdf 281)
Q9.3 60 mm long line PQ, end P 20 mm in front of VP & 40 mm above HP.



Q9.4 (Pg 9.5, Pdf 282)
Q9.4 50 mm long line PQ, end P 20 mm above HP & 40 mm in front of VP. Line inclined at 30 degrees to HP. End Q || to VP.



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Q9.5 (Pg 9.6, Pdf 283)

Q9.15 (Pg 9.14, Pdf 291)

a) $TL = 80 \text{ mm}$
 b) one end is 20 mm above HL
 40 mm in front of VP
 c) line is 11 to HL & inclined to VP at 30°

True inclination
 $\theta = 45^\circ, \phi = 30^\circ$

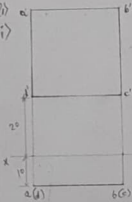
247

$$\theta = 45^\circ$$

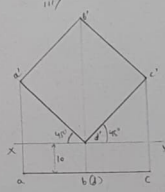
$$\phi = 30^\circ$$

$$\phi = 30^\circ$$

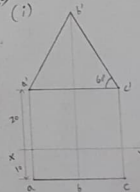
917



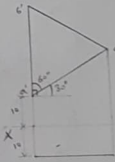
...



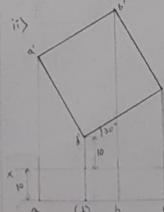
७७



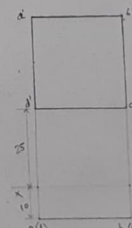
(ii)



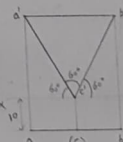
iv)



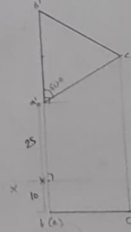
2



(iii)



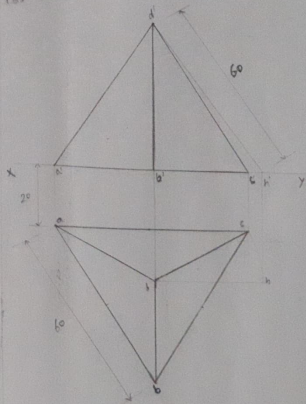
(iv)



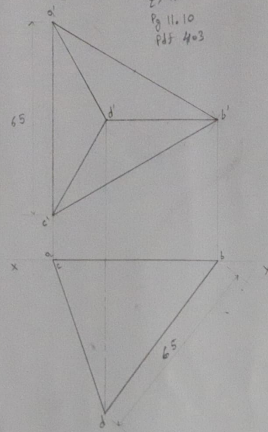
PROJECTION OF SOLIDS

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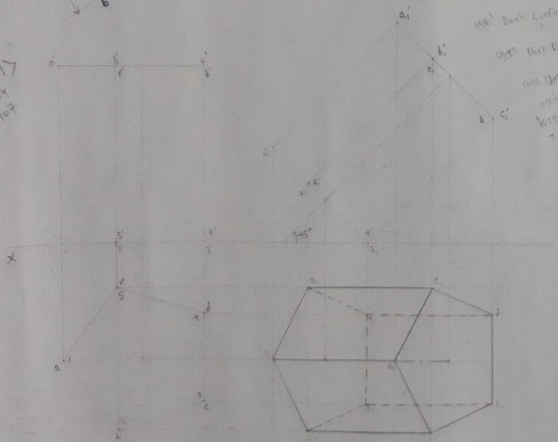
Q 11.8
Pg 11.11
P.S. 404



Q 11.9
Pg 11.10
P.S. 403

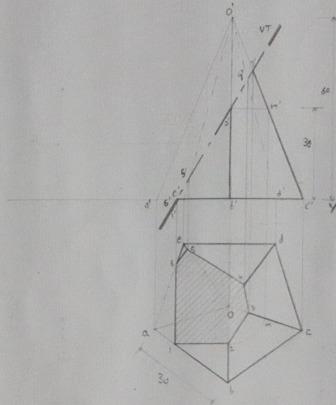


Q 11.9
Pg 11.11
P.S. 404

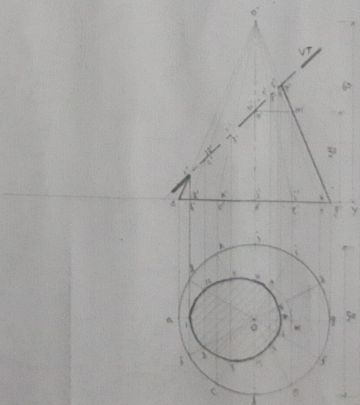


1. Draw the front view of the object.
2. Draw the top view of the object.
3. Draw the side view of the object.
4. Draw the isometric view of the object.
5. Draw the perspective view of the object.

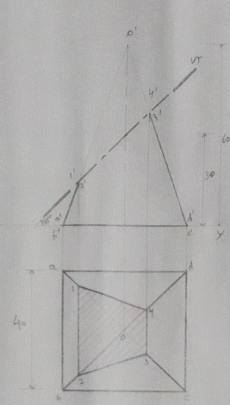
Q 12.6
Pg 12.7
P.S. 470



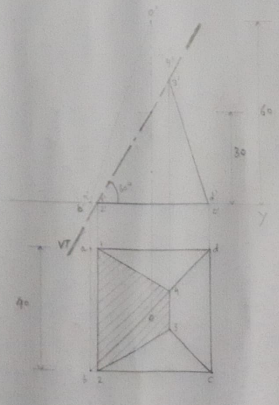
Q 12.11
Pg 12.14
P.S. 495



Q 12.11
Pg 12.7
P.S. 403

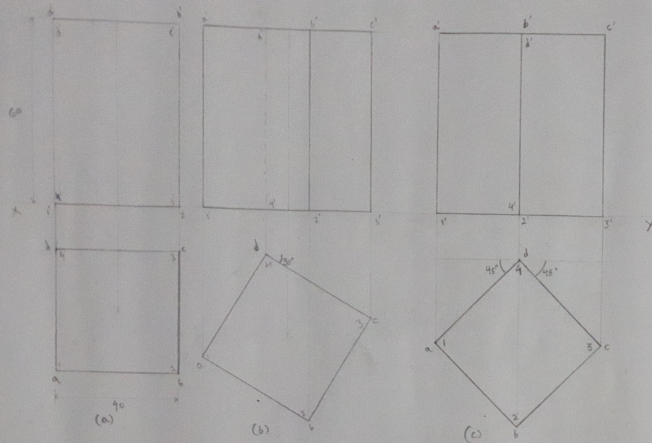


Q 12.11
Pg 12.7
P.S. 403

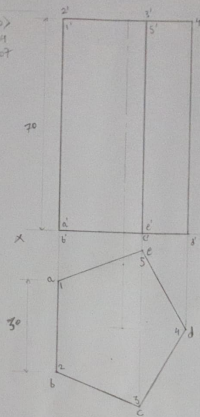


(PROJECTION OF SOLIDS)

Q 11.27
Pg 11.4
Ex 11.7



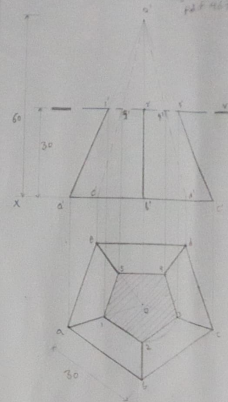
Q 11.10
Pg 11.4
Ex 11.7



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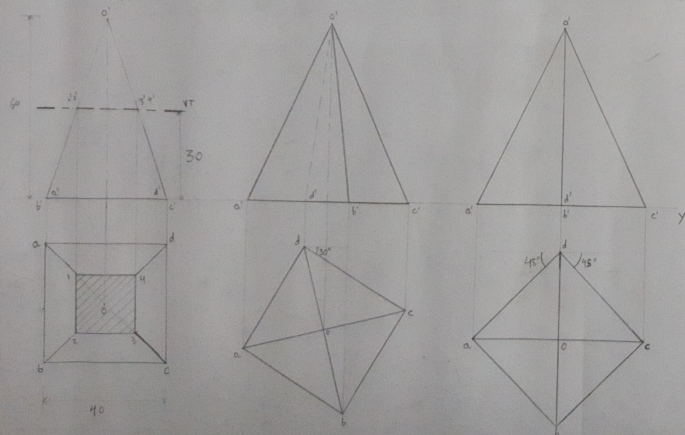
Mukund Hesthaja

Q 12.3
Pg 12.6
Ex 12.7

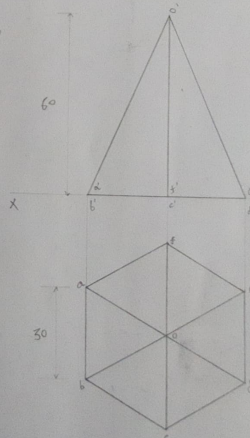


Q 11.1
Pg 11.4
Ex 11.6

Q 11.2
Pg 11.4
Ex 11.6



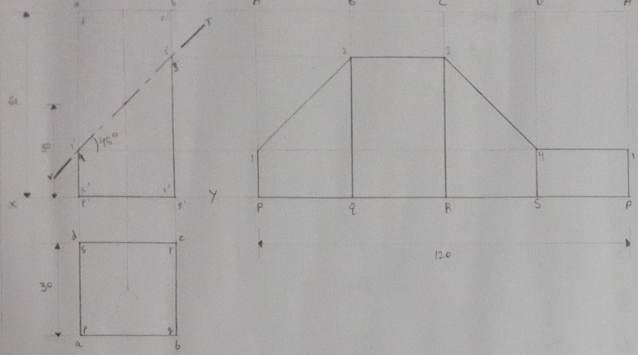
Q 11.11
Pg 11.5
Ex 11.6



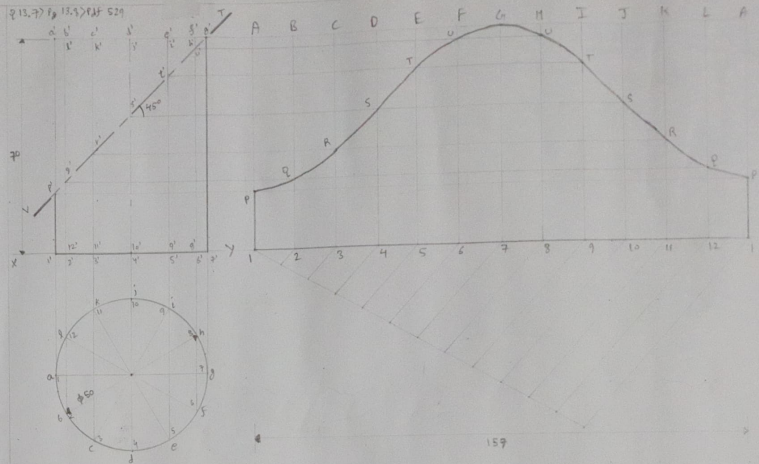
Development of Solids

Mukund Kulkarni AJML-I 0206AL24059

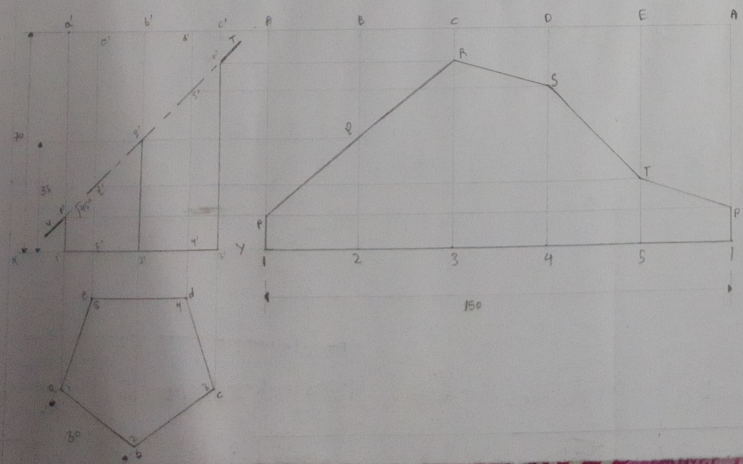
Q.3 A sq prism at base side 30 mm & ax is 60 mm is resting on its base on H.P. with a cutting plane parallel to V.P. It is cut by a section plane bisecting its axis at 45° to H.P. Draw development of lateral surfaces of prism.



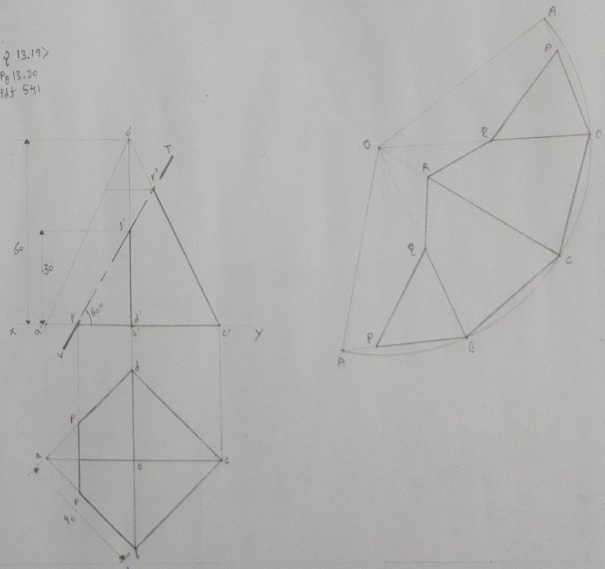
Q.13.7 Pg. 13.5 > Ref 529



Q.13.12 Pg. 13.5 > Ref 524



Q.13.19 Pg. 13.20 Ref 541

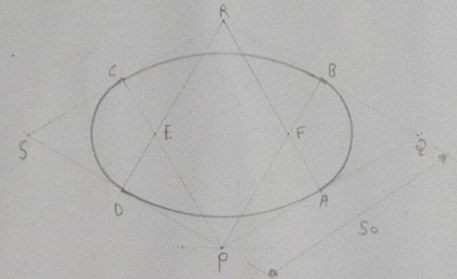
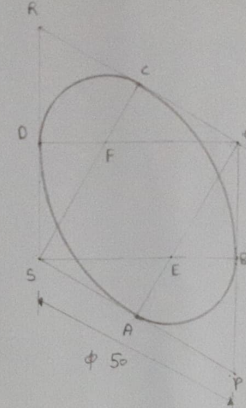
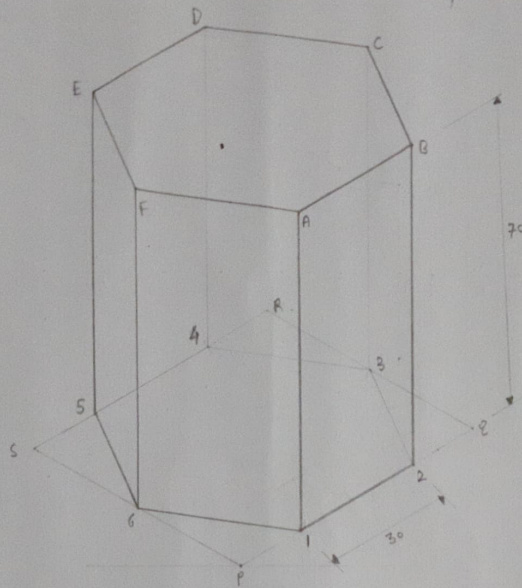
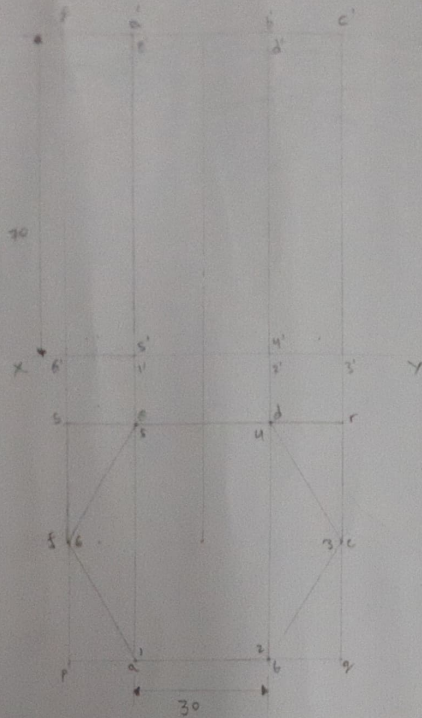


ISOMETRIC VIEW

Mukund Kulkar A1ML-I 0206AL 211059

Q 15.10
Pg 15.12
Pg 5619

Q 15.7 > Pg 15.10 > Pg 5617



Q 15.10 [Pyramid]
Pg 15.12
Pg 5619

