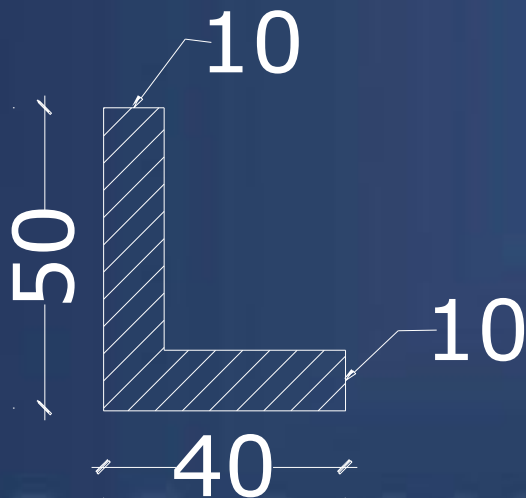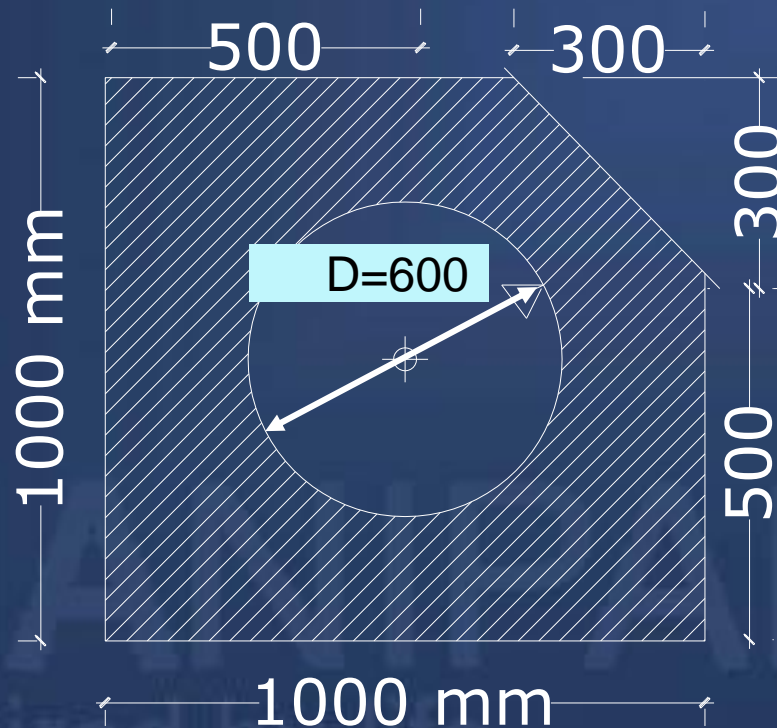Problem No.1:

Locate the centroid of the shaded area shown

10

50

10

40

Ans: $\bar{x}$=12.5, $\bar{y}$=17.5
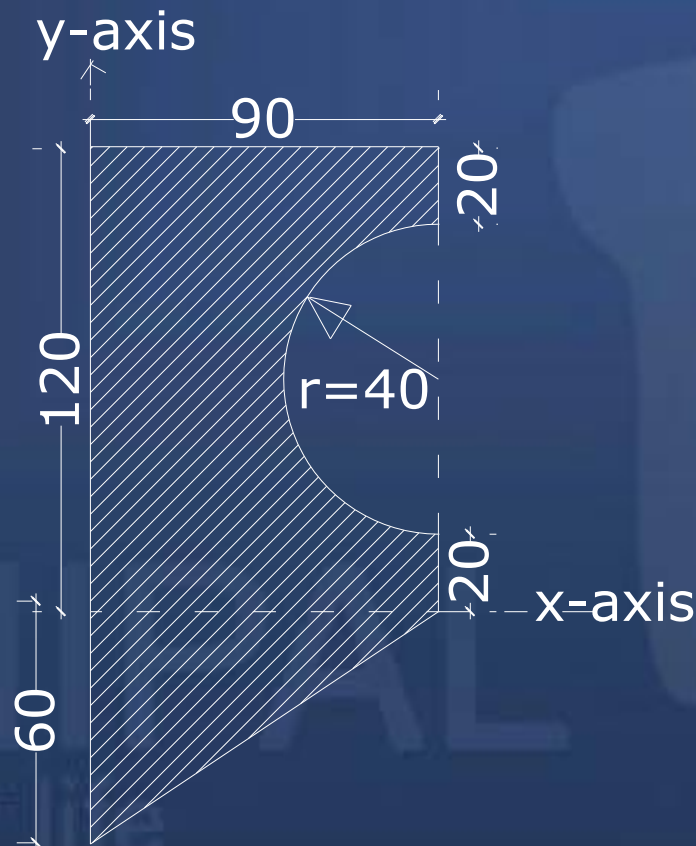
Problem No.2:

Locate the centroid of the shaded area shown

500 ← → 300

300

D=600

1000 mm

500

1000 mm

2

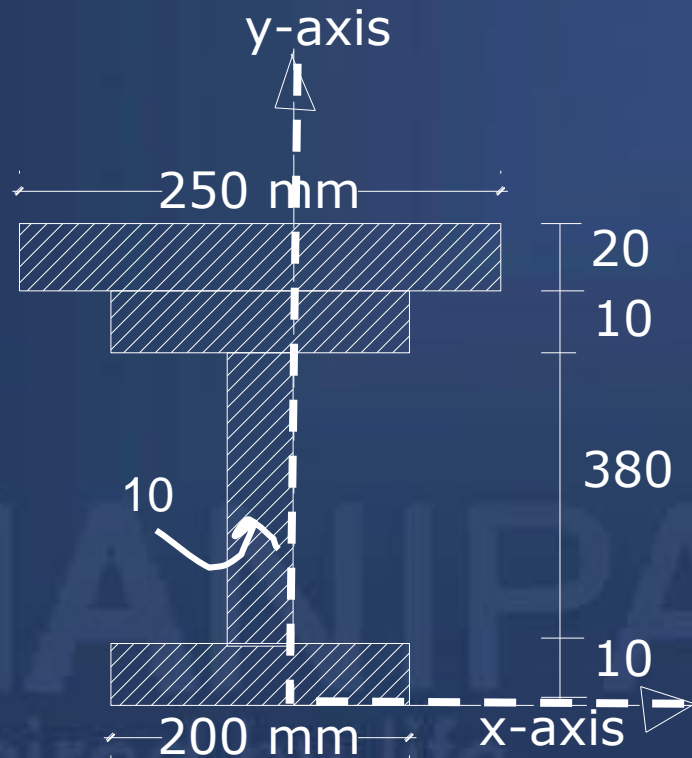Ans: $\bar{x}$=474mm, $\bar{y}$=474mm

Problem No.3:

Locate the centroid of the shaded area w.r.t. to the axes shown
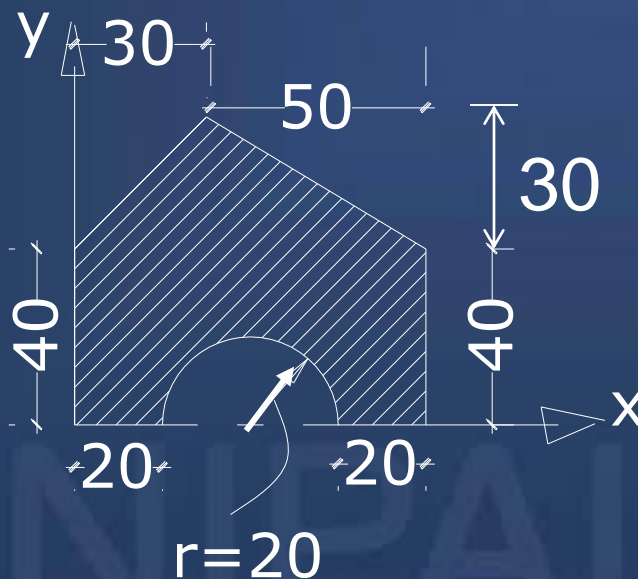

3

Ans: $\bar{x}=34.4$, $\bar{y}=40.3$

Problem No.4:

Locate the centroid of the shaded area w.r.t. to the axes shown

4

Ans: $\bar{x}$= -5mm, $\bar{y}$=282mm

Problem No.5

Locate the centroid of the shaded area w.r.t. to the axes shown

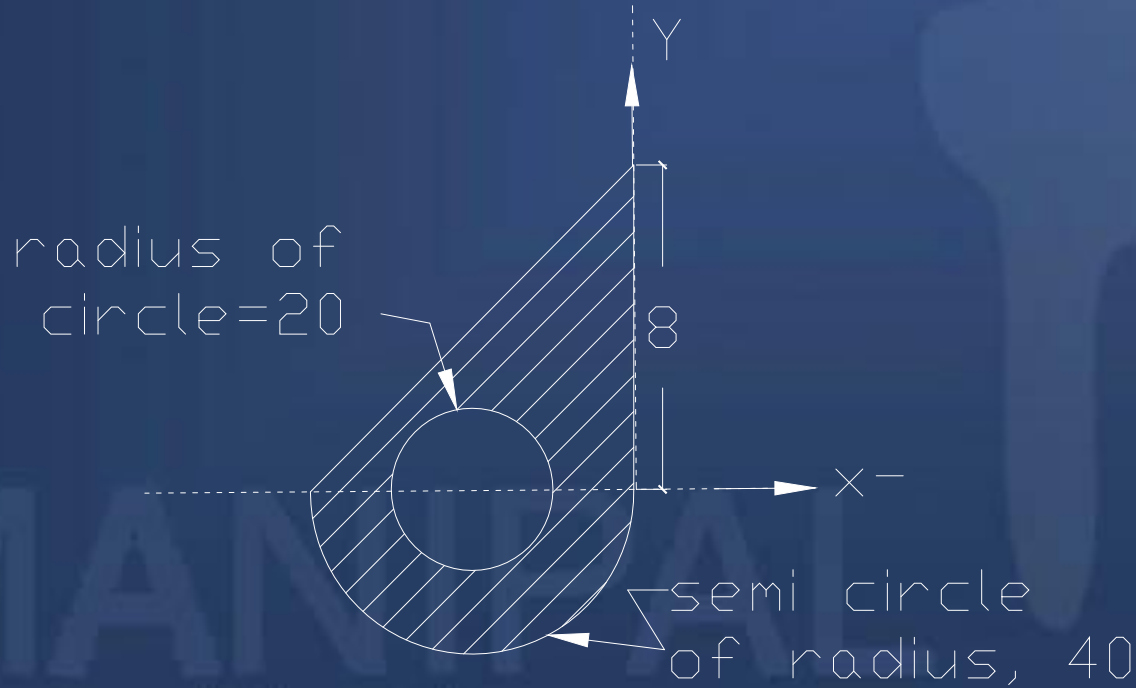Ans: $\bar{x} = 38.94$, $\bar{y} = 31.46$

Problem No.6

Locate the centroid of the shaded area w.r.t. to the axes shown

6

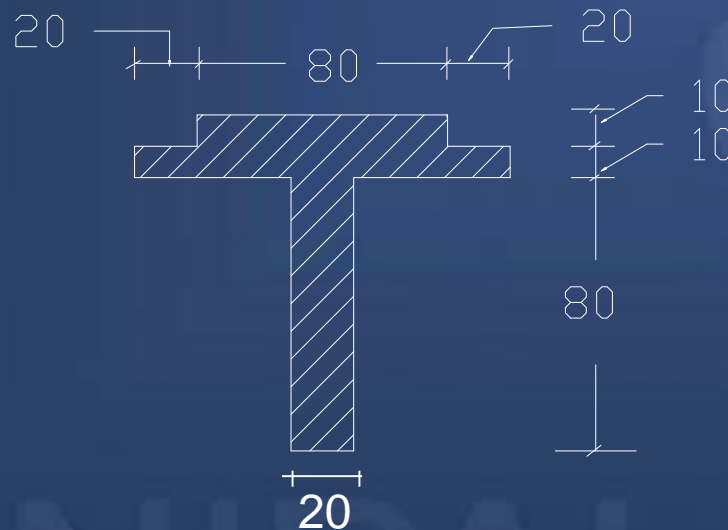Ans: $\bar{x}$=0.317, $\bar{y}$=0.24

Problem No.7

Locate the centroid of the shaded area w.r.t. to the axes shown

radius of circle=20

semi circle of radius, 40

8

Y

x-

Ans: $\bar{x}$= -30.43, $\bar{y}$= +9.58
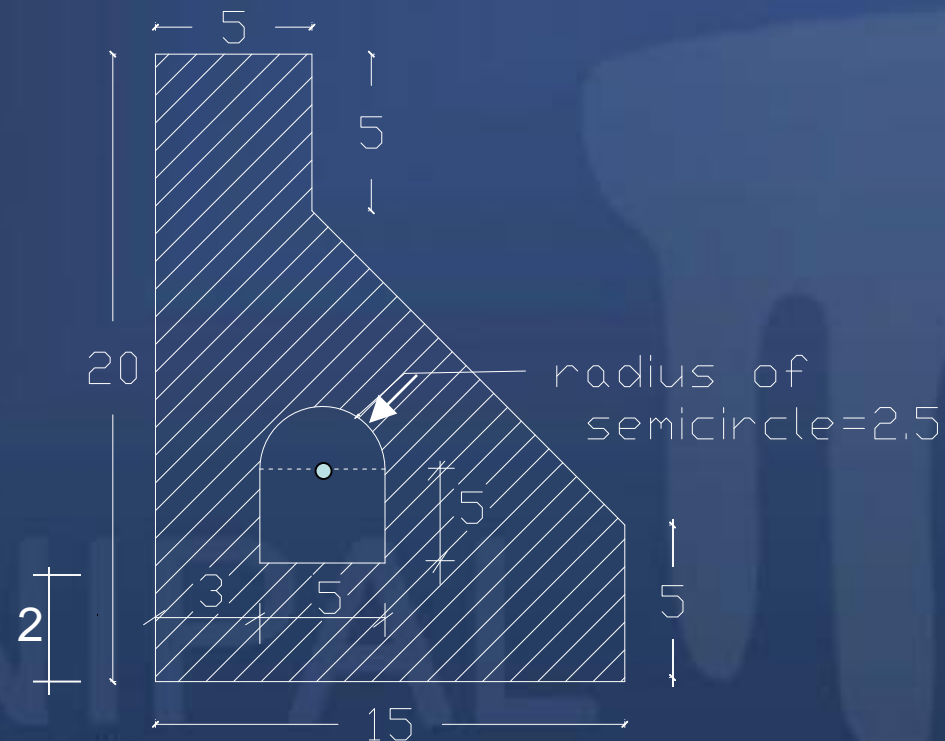
Problem No.8

Locate the centroid of the shaded area.

Ans: $\bar{x}$= 0, $\bar{y}$= 67.22(about base)
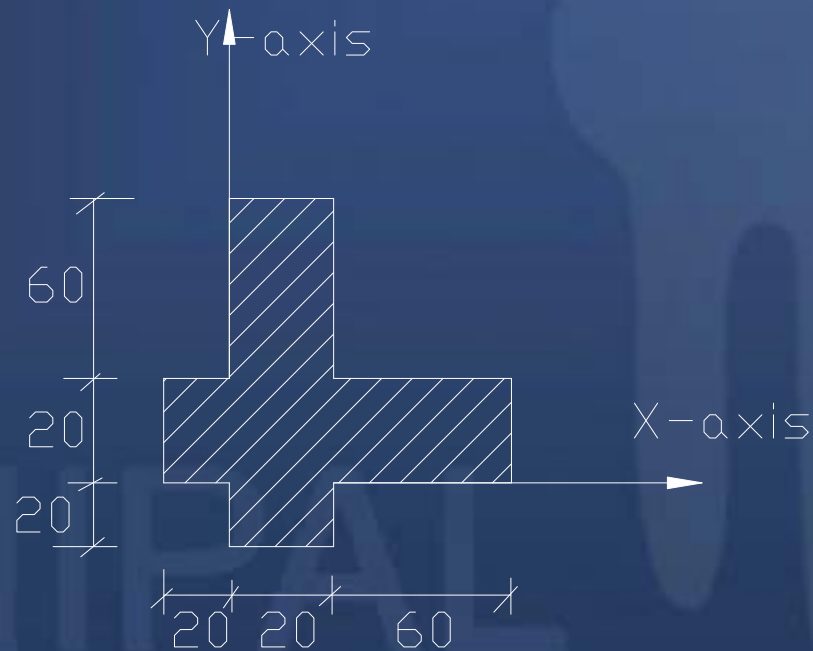
Problem No.9

Locate the centroid of the shaded area w.r.t. to the base line.

Ans: $\bar{x}$=5.9, $\bar{y}$= 8.17
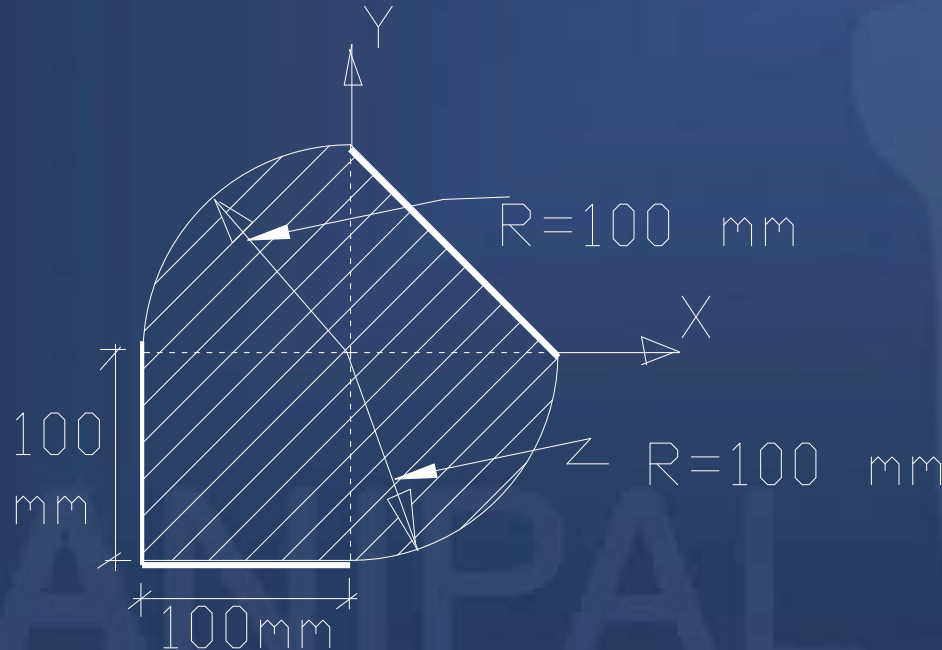
9

Problem No.10

Locate the centroid of the shaded area w.r.t. to the axes shown

Ans: $\bar{x}$=21.11, $\bar{y}$= 21.11
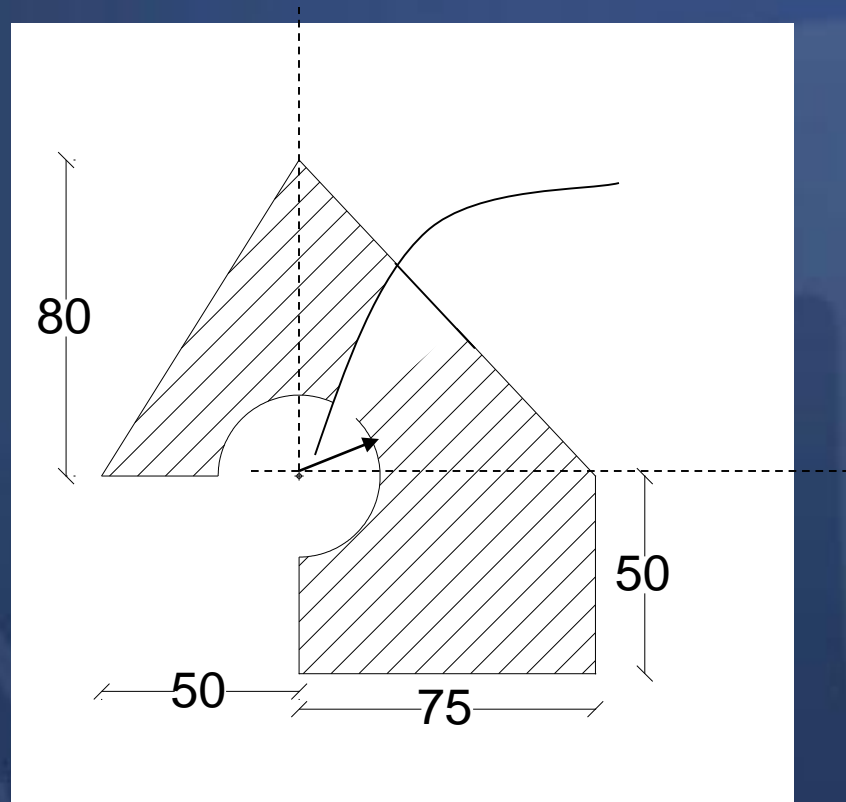
Problem No.11

Locate the centroid of the shaded area w.r.t. to the axes shown

11

Ans: $\bar{x} = \bar{y} = 22.22$

Problem No.12

Locate the centroid of the shaded area w.r.t. to the axes shown

Ans: $\bar{x}$= 24.33 $\bar{y}$= 4.723