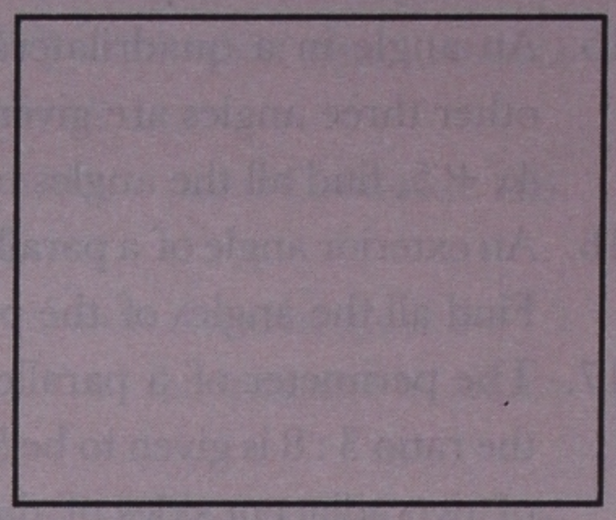
Worksheet 5

On constructions and proof

Assignment 1



Construct the required diagram in the box by following the given steps.

Step 1 Use a compass to draw a circle with radius 2 cm.

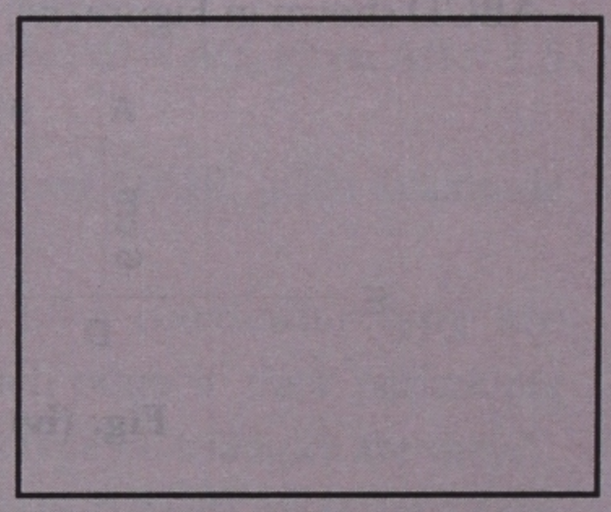
Step 2 Use a ruler to draw a diameter AB.

Step 3 Use a compass and ruler to draw perpendicular bisector to diameter AB that intersects the circle at points C and D.

Step 4 Connect points ACB and D and describe figure ACBD.

Now prove that AC || BD

Assignment 2



Construct the required diagram in the box by following the given steps.

Step 1 Use a compass to draw a circle with radius 2 cm.

Step 2 Use a ruler to draw a radius OA.

Step 3 At centre O construct $\angle BOA = 120^\circ$, such that OB is also a radius of the circle.

Step 4 At centre O construct $\angle COB = 120^\circ$, such that OC is also a radius of the circle.

Step 5 Measure the magnitude of $\angle COA$. $\angle COA =$ _____°

Now prove that triangles AOB, BOC and COA are congruent to each other.