

## Practical Geometry - Exercise 4.5

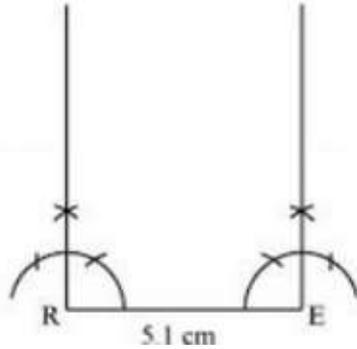
**Draw the following.**

**Q.1 The square READ with RE = 5.1 cm.**

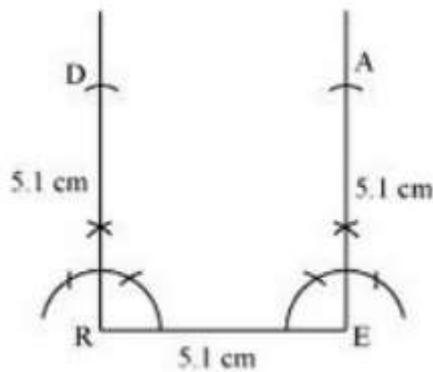
**Sol. Steps for Construction:**

Step 1: Firstly, draw a line segment RE = 5.1 cm with help of pencil and ruler.

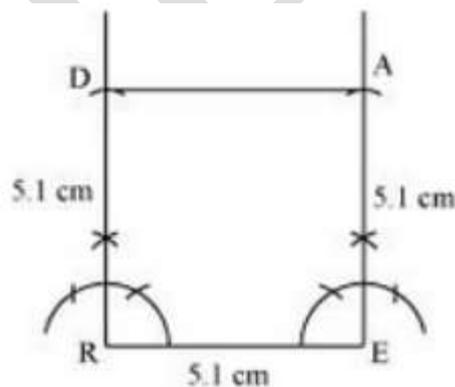
Step 2: Draw an angle of  $90^\circ$  at points R and E.



Step 3: Now take points R and E as centres and draw the arcs of radius 5.1 cm on the rays to get the vertex A and D.



Step 4: Join AD.



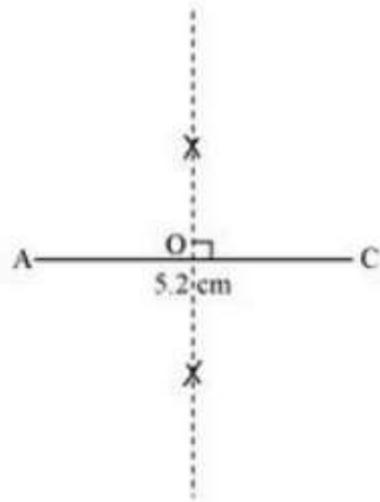
Thus, READ is the required square.

**Q.2 A rhombus whose diagonals are 5.2 cm and 6.4 cm long.**

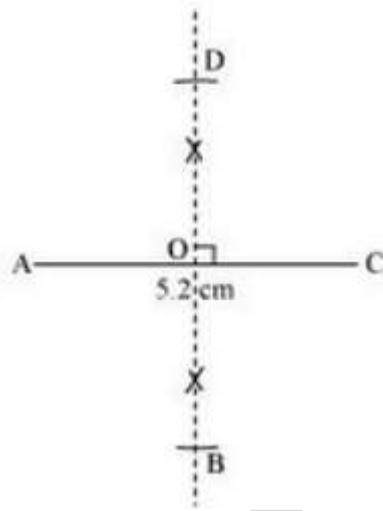
**Sol. Steps for Construction:**

Step 1: Firstly, draw a line segment AC = 5.2 cm with help of pencil and ruler.

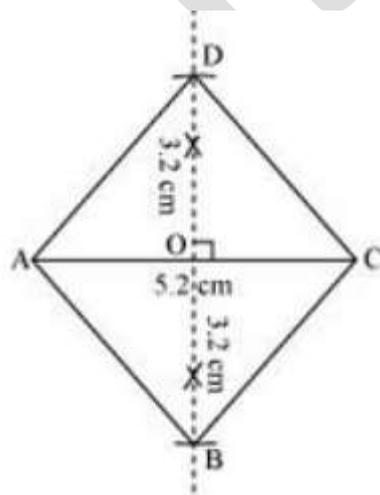
Step 2: Now, draw perpendicular bisectors of line segment AC with help of compass which intersects AC at point O.



Step 3: Draw arcs of length 3.2 cm on both the sides of line segment AC on the perpendicular bisector which intersect at points B and D.



Step 3: Join AB, BC, DC, AD and AC.



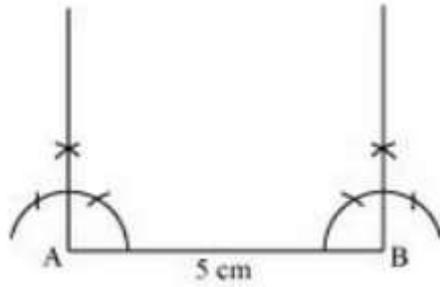
Thus, ABCD is the required rhombus.

**Q.3 A rectangle with adjacent sides of lengths 5 cm and 4 cm.**

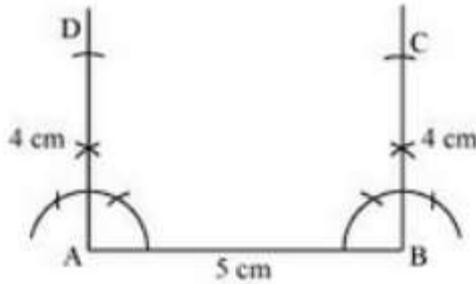
**Sol. Steps for Construction:**

Step 1: Firstly, draw a line segment AB = 5 cm with help of pencil and ruler.

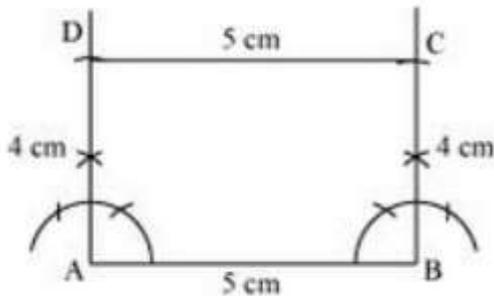
Step 2: Draw an angle of  $90^\circ$  at points A and B with help of compass.



Step 3: Now, mark arcs of radius 4 cm from points A and B on the angle rays which intersect at points D and C respectively.



Step 4: Join CD.



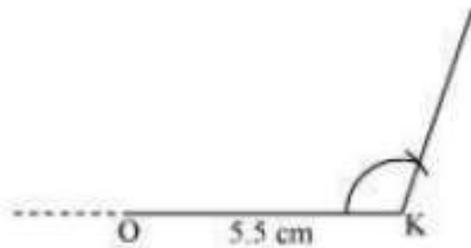
Thus, ABCD is the required rectangle.

**Q.4 A parallelogram OKAY where  $OK = 5.5$  cm and  $KA = 4.2$  cm.**

**Sol. Steps for Construction:**

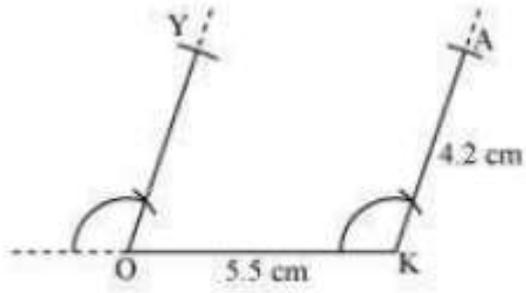
Step 1: Firstly, draw a line segment  $OK = 5.5$  cm with help of pencil and ruler.

Step 2: Now, draw a convenient angle at point K.

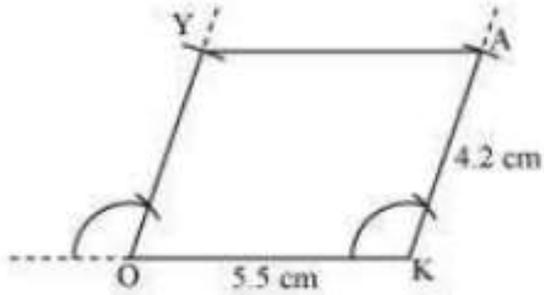


Step 3: Draw a ray from point O such that it should be parallel to ray from point K.

Step 4: Now, mark the arcs of radius 4.2 cm from O and K on these rays which intersect at points Y and A respectively.



Step 5: Join YA.



Thus, OKAY is the required parallelogram.

EDUGEEKS