

Board – CBSE

Class – 8th

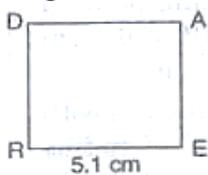
Topic – Practical Geometry 4.5

Draw the following.

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

Sol: As we know that sides of a square are equal which means,
 $RE = EA = AD = DR = 5.1$ cm and adjacent sides make an angle of 90° .

Rough sketch of READ



Steps of construction:

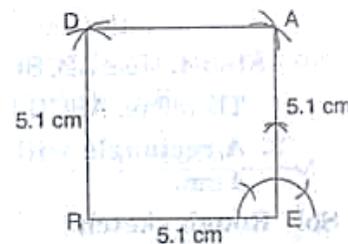
Step 1. Draw $RE = 5.1$ cm.

Step 2. At point E, construct an angle of 90° and draw an arc of radius 5.1 cm which intersects at A.

Step 3. At point R, draw an arc of radius 5.1 cm at point A, draw another arc of radius 5.1 cm which intersects the first arc at D.

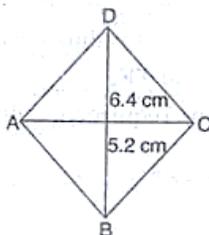
Step 4. Join AD and RD.

Therefore, READ is the required square.



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

Sol: Rough sketch



Steps of construction:

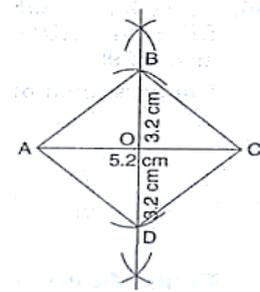
Step 1. Draw $AC = 5.2$ cm and draw perpendicular bisectors on AC.

Step 2. Since diagonals bisect at mid-point O so we get half of 6.4 cm that is 3.2 cm.

Step 3. Draw two arcs on both sides of AC of radius 3.2 cm from intersection point O, which intersects at B and D.

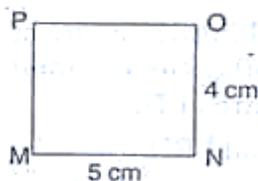
Step 4. Join AB, BC, CD, and DA which is the required rhombus.

Therefore, ABCD is the required rhombus.



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

Sol: Rough sketch



Steps of construction:

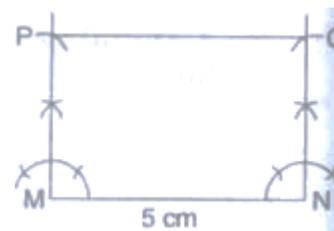
Step 1. Draw a segment $MN = 5$ cm.

Step 2. At points, M and N, draw perpendiculars of lengths 4 cm and produce them.

Step 3. Taking centers M and N, draw two arcs of 4 cm each, which intersect P and Q respectively.

Step 4. Now, join another side PO.

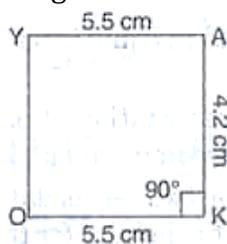
MNOP is the required rectangle.



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

Sol: Opposite sides of a parallelogram are equal and parallel to each other. The given parallelogram OKAY can be drawn as follows.

Rough sketch of OKAY



Steps of construction:

Step 1. Draw a line segment $OK = 5.5$ cm.

Step 2. Draw an angle of 90° at K and draw an arc of radius $KA = 4.2$ cm, which intersects at point A.

Step 3. Now draw another arc of radius $AY = 5.5$ cm and at point O, draw another arc of radius 4.2 cm which intersect at Y.

Step 4. Join AY and OY which is equal to 5.5 cm

OKAY is the required parallelogram.

