Exercise 4.5

Question 1:
Draw the following:
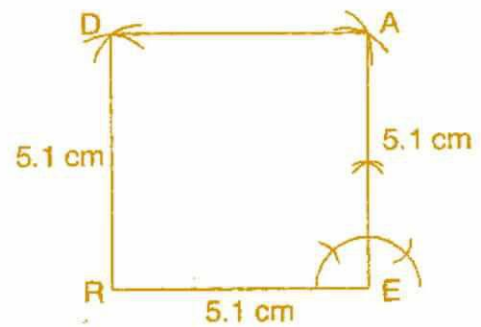The square READ with RE = 5.1 cm.

Answer 1:
Given: RE = 5.1 cm.
To construct: A square READ.
Steps of construction:
- (i) Draw RE = 5.1 cm.
- (ii) At point E, construct an angle of 90° and draw an arc of radius 5.1 cm, which intersects at point A.
- (iii) 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 point D.
- (iv) Join AD and RD.

It is the required square READ,

Question 2:
Draw the following:
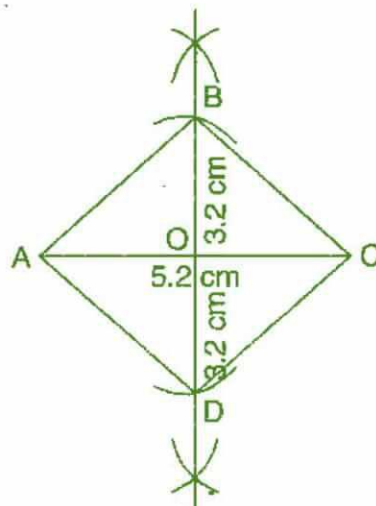A rhombus whose diagonals are 5.2 cm and 6.4 cm.

Answer 2:
Given: Diagonals of a rhombus AC = 5.2 cm and BD = 6.4 cm.
To construct: A rhombus ABCD.
Steps of construction:
- (a) Draw AC = 5.2 cm and draw perpendicular bisectors on AC.
- (b) Since, diagonals bisect at mid-point O, therefore get half of 6.4 cm, i.e., 3.2 cm.
- (c) Draw two arcs on both sides of AC of radius 3.2 cm from intersection point O, which intersects at B and D.
- (d) Join AB, BC, CD and DA.

It is required rhombus ABCD.

Question 3:
Draw the following:
A rectangle with adjacent sides of length 5 cm and 4 cm.
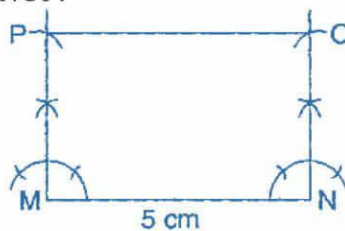
Answer 3:
Given: MN = 5 cm and MP = 4 cm.
To construct: A rectangle MNOP
Steps of construction:
(a) Draw a segment MN = 5 cm.
(b) At points M and N, draw perpendiculars of lengths 4 cm and produce them.
(c) Taking centres M and N, draw two arcs of 4 cm each, which intersect P and Q respectively.
(d) Join side PO.
It is required rectangle MNOP.

Question 4:
Draw the following:
A parallelogram OKAY where OK = 5.5 cm and KA = 4.2 cm.

Answer 4:
Given: OK = 5.5 cm and KA = 4.2 cm.
To construct: A parallelogram OKAY.
Steps of construction:
(a) Draw a line segment OK = 5.5 cm.
(b) Draw an angle of 90° at K and draw an arc of radius KA = 4.2 cm, which intersects at point A.
(c) 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.
(d) Join AY and OY.
It is the required parallelogram OKAY.