QUADRILATERALS

BASIC CONCEPT OF QUADRILATERALS

EXERCISE

Q.1 In a quadrilateral ABCD, the angles A, B, C and D are in the ratio 2 : 4 : 5 : 7. Find the measure of each angles of the quadrilateral.

Q.2 The sides BA and DC of a quadrilateral ABCD are produced as shown in fig.

Prove that a + b = x + y.

Q.3 In a quadrilateral ABCD, AO and BO are the bisectors of $\angle$A and $\angle$B respectively.

Prove that $\angle$AOB = $\frac{1}{2}$ ($\angle$C + $\angle$D).

Q.4 The angle of a quadrilateral are respectively 100°, 98°, 92°. Find the fourth angle.

Q.5 Three angles of a quadrilateral are respectively equal to 110°, 50° and 40°. Find its fourth angles.

Q.6 In a quadrilateral ABCD, the angles A, B, C and D are in the ratio 1 : 2 : 4 : 5. Find the measure of each angles of the quadrilateral.

Q.7 Three angles of a quadrilateral are of magnitudes 80°, 95° and 120°. Find the magnitude of the fourth angle

Q.8 Two consecutive angles of a parallelogram are in the ratio 1 : 3. Find the smaller angle

Q.9 If three angles of a quadrilateral are 100º, 75º and 105º, then find the measure of the fourth angle

Q.10 The diagonals of a rhombus are 12 cm and 16 cm. Find the length of the side of the rhombus

ANSWER KEY

1. $\angle A = 40^{\circ} \ \angle B = 80^{\circ} \ \angle C = 100^{\circ} \ \angle D = 140^{\circ}$

4.   70°

5.   160°

6.   30°, 60°, 120°,150°

7.   65°

8.   45°

9.   80°

10.   10 cm