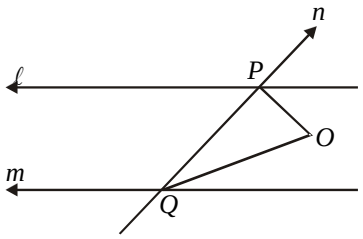
TRIANGLES

BASIC CONCEPT OF TRIANGLES

EXERCISE

Q.1 If the ratio of three angles of a triangle is 1 : 2 : 3, find the angles.

Q.2 In the fig. λ || m and n is transversal. PO and QO are angle bisectors. Prove that ∠POQ = 90º.



Q.3 If the angles of a triangle are in the ratio 2 : 3 : 4, determine the three angles.

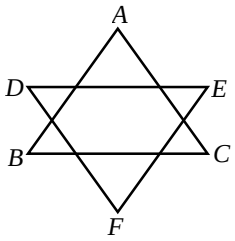
Q.4 The sum of two angles of a triangle is 95º and their difference is 25º. Find all the three angles of the triangle.

Q.5 The side BC of a triangle ABC is produced to D. The bisector of the ∠A meets BC in L. Prove that ∠ABC + ∠ACD = 2 ∠ALC.

Q.6 The sides BC, CA and AB of ΔABC, are produced In order, forming exterior angles ∠ACD, ∠BAE and ∠CBF. Show that ∠ACD + ∠BAE + ∠CBF = 360º.

Q.7 Sides BC, CA and BA of the ΔABC are produced to D, E, F, respectively. If ∠ACD = 110° and ∠EAF = 130º. Find all the three angles of the triangle.

Q.8 In the adjoining figure, find the value of, $\angle A + \angle B + \angle C + \angle D + \angle E + \angle F$.



Q.9 An exterior angle of a triangle is 120º. One of the interior opposite angle is 35º. Find theother two angles.

Q.10 If the sides of a triangle are in the ratio 5 : 4 : 3, then find the respective altitudes on them ?

ANSWER KEY

1. 30º, 60º, 90º

7. 50º, 60º, 70º

8. 360º

9. 85º, 60º

10. 12 : 15 : 20