Chapter 11

ASSIGNMENT

SUBJECTIVE 11.1

For each angle, given below, make a separate construction. Draw a ray BC and an another ray BA so that the $\hat{e}$ABC is equal to :

1. 15^0
2. $22\frac{1}{2}^0$
3. 75^0
4. $52\frac{1}{2}^0$
5. $67\frac{1}{2}^0$
6. 165^0
7. 135^0

8. Construct and equilateral triangle with side :
    (i) 5 cm   (ii) 5.4 cm   (iii) 6.2 cm
9. Construct a triangle ABC, in which :
    (i) base AB = 5.4 cm, $\angle B = 45^0$ and AC + BC = 9 cm.
    (ii) base BC = 6 cm, $\angle B = 60^0$ and AB + AC = 9.6 cm.
    (iii) base AC = 5 cm, $\angle C = 90^0$ and AB + BC = 10.6 cm.
10. Construct a right triangle, with base = 4 cm and the sum of the other side and hypotenuse = 9.4 cm.
11. Construct a triangle ABC, in which :
    (i) BC = 4.8 cm, $\angle B = 45^0$ and AB - AC = 2.4 cm.
    (ii) BC = 4.8 cm, $\angle B = 45^0$ and AC - AB = 2.4 cm.
    (iii) AB = 5.3 cm, $\angle A = 60^0$ and AC - BC = 2 cm.
    (iv) AB = 5.3 cm, $\angle A = 60^0$ and BC - AC = 2 cm.
12. Construct a triangle ABC, with :
    (i) perimeter = 12 cm, $\angle B = 45^0$ and $\angle C = 60^0$.
    (ii) perimeter = 11.6 cm, $\angle B = 60^0$ and $\angle C = 90^0$
    (iii) perimeter = 11 cm, $\angle A = 60^0$ and $\angle C = 45^0$.
    (iv) perimeter = 10 cm, $\angle B = \angle C = 60^0$

13. Construct as equilateral triangle with perimeter 15.6 cm.
14. Without finding the length of each side of the equilateral triangle construct it. If its perimeter is 16 cm.
15. Construct an equilateral triangle whose altitude is 4.8 cm.
16. Construct a ∆ PQR in which base QR = 4 cm, $\angle R = 30^0$ and PR - PQ = 1.1 cm.
17. Construct a ∆ XYZ with perimeter 9.6 cm and base angle 30^0 and 60^0
18. Construct a ∆ PQR in which PQ = 3.7 cm, QR = 3.6 cm and median PA = 3.1 cm.
19. Construct a ∆ DEF, the lengths of whose medians are 6 cm, 7 cm and 8 cm.
20. Construct on equilateral triangle, one of whose altitudes measures 6.4 cm.

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