



### Exercise 16A

Q7

**Answer :**

Let  $3\angle A = 4\angle B = 6\angle C = x$

Then, we have:

$$\angle A = \frac{x}{3}, \angle B = \frac{x}{4}, \angle C = \frac{x}{6}$$

$$\text{But, } \angle A + \angle B + \angle C = 180^\circ$$

$$\therefore \frac{x}{3} + \frac{x}{4} + \frac{x}{6} = 180^\circ$$

$$\text{or } \frac{4x + 3x + 2x}{12} = 180^\circ$$

$$\text{or } 9x = 180^\circ \times 12 = 2160^\circ$$

$$\text{or } x = 240^\circ$$

$$\therefore \angle A = \frac{240}{3} = 80^\circ, \angle B = \frac{240}{4} = 60^\circ, \angle C = \frac{240}{6} = 40^\circ$$

Q9

**Answer :**

**Equilateral Triangle:** A triangle whose all three sides are equal in length and each of the three angles measures  $60^\circ$ .

**Isosceles Triangle:** A triangle whose two sides are equal in length and the angles opposite them are equal to each other.

**Scalene Triangle:** A triangle whose all three sides and angles are unequal in measure.

(i) Isosceles

$$AC = CB = 2 \text{ cm}$$

(ii) Isosceles

$$DE = EF = 2.4 \text{ cm}$$

(iii) Scalene

All the sides are unequal.

(iv) Equilateral

$$XY = YZ = ZX = 3 \text{ cm}$$

(v) Equilateral

All three angles are  $60^\circ$ .

(vi) Isosceles

Two angles are equal in measure.

(vii) Scalene

All the angles are unequal.

Q10

**Answer :**

\*\*\*\*\* END \*\*\*\*\*