Chapter 4 :- Geometry

Exercise – 1

Find the angles marked with letters.

3. Find the angles marked with letters

Solution

(The angles at a point add upto 360^0)

$$140^o + 120^0 + \widehat{C} = 360^o$$

$$\widehat{C} = 360^o - 260^o$$

$$\boxed{\widehat{C} = 100^o}$$

7. Solution

(The angles on a straight line add upto 180^0)

$$3a + 2a + a = 180^o$$

$$6a = 180^o$$

$$a = \frac{180^o}{6}$$

$$a = 30^o$$

15. Solution

(The angle sum of a triangle is 180^0)

$$3x + 4x + 2x = 180^o$$

$$9x = 180^o$$

$$x = \frac{180^o}{9}$$

$$x = 20^o$$

$$2x = 2 \times 20^o$$

$$2x = 40^o$$

(The angles on a straight line add upto 180^0)

$$2x + y = 180^o$$

$$40^o + y = 180^o$$

$$y = 180^o - 40^o$$

$$y = 140^o$$

19. Solution

(The angle sum of a triangle is 180^0)

$$22^o + 46^o + y = 180^o$$

$$y = 180^o - 68^o$$

$$y = 112^o$$

(The angles on a straight line add upto 180^0)

$$z = 180^o - 112^o = 68^o$$

(Isosceles triangle has two sides and two equal angle)

$$z + z + x = 180^o$$

$$68^o + 68^o + x = 180^o$$

$$x = 180^o - 136^o$$

$$x = 44^o$$

21. Solution

(The angle sum of a triangle is 180^0)

$$44^o + 60^o + b = 180^o$$

$$b = 180^o - 104^o$$

$$b = 76^o$$

(The angles on a straight line add upto 180^0)

$$c = 180^o - 130^o = 50^o$$

(The angle sum of a triangle is 180^0)

$$50^o + 76^o + a + 44^o = 180^o$$

$$a = 180^o - 170^o$$

$$a = 10^o$$