



#### Quadrilaterals Ex 14.1 Q1

**Answer :**

Let the measure of the fourth angles be  $x^\circ$ . We know that the sum of the angles of a quadrilateral is  $360^\circ$ .

Therefore,

$$110 + 50 + 40 + x = 360$$

$$200 + x = 360$$

$$x = 360 - 200$$

$$x = \boxed{160}$$

Hence the measure of the fourth angle is  $\boxed{160^\circ}$ .

#### Quadrilaterals Ex 14.1 Q2

**Answer :**

We have ,  $\angle A : \angle B : \angle C : \angle D = 1 : 2 : 4 : 5$ .

So, let  $\angle A = x$  ,

$$\angle B = 2x ,$$

$$\angle C = 4x$$

And  $\angle D = 5x$

By angle sum property of a quadrilateral, we get:

$$\angle A + \angle B + \angle C + \angle D = 360$$

$$x + 2x + 4x + 5x = 360$$

$$12x = 360$$

$$x = \frac{360}{12}$$

$$x = \boxed{30}$$

$$\angle A = x$$

$$\angle A = \boxed{30^\circ}$$

Also,

$$\angle B = 2x$$

$$\angle B = 2(30^\circ)$$

$$\angle B = \boxed{60^\circ}$$

And

$$\angle C = 4x$$

$$\angle C = 4(30^0)$$

$$\angle C = \boxed{120^0}$$

Similarly,

$$\angle D = 5x$$

$$\angle D = 5(30^0)$$

$$\angle D = \boxed{150^0}$$

Hence, the four angles are  $\boxed{30^0}$ ,  $\boxed{60^0}$ ,  $\boxed{120^0}$  and  $\boxed{150^0}$ .

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