



Quadrilaterals Ex 14.1 Q4

**Answer :**

We have,  $\angle A : \angle B : \angle C : \angle D = 3 : 5 : 9 : 13$ .

So, let  $\angle A = 3x$ ,

$$\angle B = 5x,$$

$$\angle C = 9x$$

and  $\angle D = 13x$

By angle sum property of a quadrilateral, we get:

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

$$3x + 5x + 9x + 13x = 360$$

$$30x = 360$$

$$x = \frac{360}{30}$$

$$x = \boxed{12}$$

$$\angle A = 3x$$

$$\angle A = 3(12^\circ)$$

$$\angle A = \boxed{36^\circ}$$

Also,

$$\angle B = 5x$$

$$\angle B = 5(12^\circ)$$

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

And

$$\angle C = 9x$$

$$\angle C = 9(12^\circ)$$

$$\angle C = \boxed{108^\circ}$$

Similarly,

$$\angle D = 13x$$

$$\angle D = 13(12^\circ)$$

$$\angle D = \boxed{156^\circ}$$

Hence, the four angles are  $\boxed{36^\circ}$ ,  $\boxed{60^\circ}$ ,  $\boxed{108^\circ}$  and  $\boxed{156^\circ}$ .

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