

Quadrilaterals Ex 14.2 Q4

Answer:

Let the shorter side of the parallelogram be x cm.

The longer side is given as 6.5 cm.

Perimeter of the parallelogram is given as 22 cm Therefore,

$$2[x+6.5] = 22$$
$$2[x+6.5] = 22$$
$$x+6.5 = 11$$
$$x = 11-6.5$$

$$x = 4.5$$

Hence, the measure of the shorter side is $\boxed{4.5}$ cm.

Quadrilaterals Ex 14.2 Q5

Answer:

It is given that ABCD is a parallelogram with $\angle D = 135^{\circ}$

We know that the opposite angles of the parallelogram are equal.

Therefore,

$$\angle B = \angle D$$

$$\angle B = \boxed{135^{\circ}}$$

Also, $\angle A$ and $\angle B$ are adjacent angles, which must be supplementary. Therefore,

$$\angle A + \angle B = 180^{\circ}$$

$$\angle A + 135^{\circ} = 180^{\circ}$$

$$\angle A = 180^{\circ} - 135^{\circ}$$

$$\angle A = \boxed{45^{\circ}}$$

Hence, $\angle A = 45^{\circ}$ and $\angle B = 135^{\circ}$

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