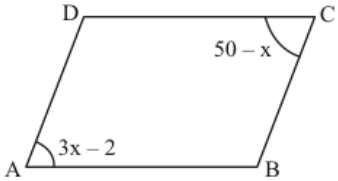
Quadrilaterals Ex 14.2 Q1

Answer :

It is given that the two opposite angles of a parallelogram are $(3x-2)^0$ and $(50-x)^0$.



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

Therefore,

$3x-2=50-x$

$3x+x=50+2$

$4x=52$

$x=\frac{52}{4}$

$x=13$ ..... (i)

Thus, the given angles become

$\angle A=(3x-2)^0$

$\angle A=[3(13)-2]^0$

$\angle A=[39-2]^0$

$\angle A=\boxed{37^0}$

Also, $AB \| DC$.

Therefore the sum of consecutive interior angles must be supplementary.

That is;

$\angle A+\angle D=180^0$

$37^0+\angle D=180^0$

$\angle D=180^0-37^0$

$\angle D=\boxed{143^0}$

Since opposite angles of a parallelogram are equal.

Therefore,

$\angle C=\boxed{37^0}$

And $\angle D=\boxed{143^0}$

Hence the four angles of the parallelogram are $\boxed{37^0}$, $\boxed{143^0}$, $\boxed{37^0}$ and $\boxed{143^0}$.

********** END **********