Understanding shapes-III special types of quadrilaterals Ex 17.3 Q7

Answer :

Let the side be x cm and $y\,cm$.

So, we have :

$2(x+y)=90$

Sides are in the ratio $4:5$.

$\therefore\ y=\frac{5x}{4}$

Putting the value of y :

$2\left(x+\frac{5x}{4}\right)=90$

$\frac{4x+5x}{4}=45$

$9x=180$

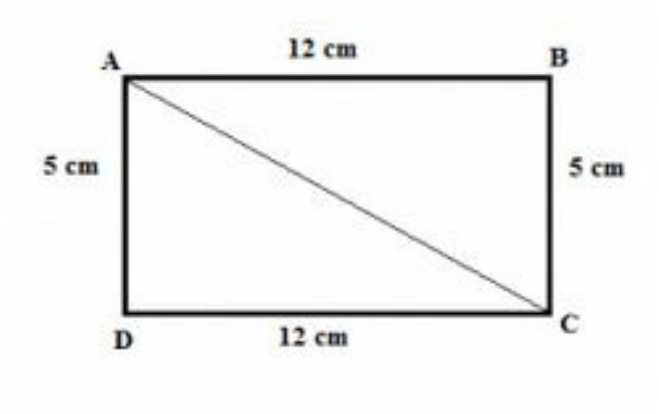
$x=20$

$\therefore\ y=\frac{5\times20}{4}=25$

Thus, the sides of the rectangle will be 20 cm and 25 cm.

Understanding shapes-III special types of quadrilaterals Ex 17.3 Q8

Answer :



Using Pythagoras theorem :

$AD^2+DC^2=AC^2$

$5^2+12^2=AC^2$

$25+14=AC^2$

$169=AC^2$

$AC=\sqrt{169}$

$=13$ cm

Thus, length of the diagonal is 13 cm.

Understanding shapes-III special types of quadrilaterals Ex 17.3 Q9

Answer :

(i) Draw a side AB, equal to 8 cm.

(ii) With A as the centre, draw an arc of length 10 cm.

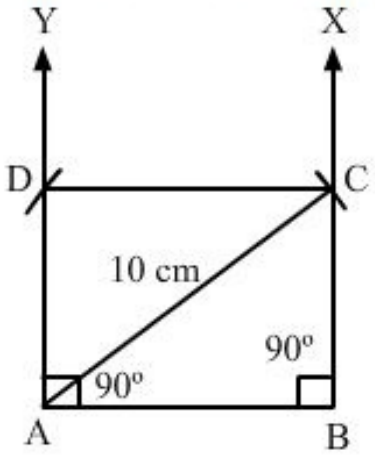
(iii) Draw ∠ABX = 90°, which intersects the arc at C.

(iv)Draw ∠BAY = 90°.

(v) With C as the centre, draw an arc of length 8 cm.

(vi) Join CD.

Thus, ABCD is the required rectangle.



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