

Worksheet

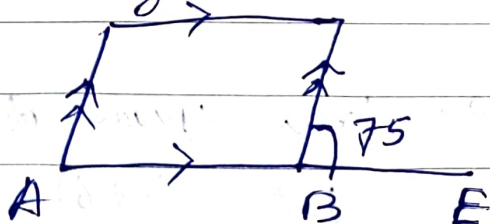
1. In the adjoining figure, $ABCD$ is a rectangle whose diagonals AC and BD intersect at O . If $\angle AOB = 32^\circ$ find $\angle ACB$ and $\angle OBC$.

2. In the adjoining figure $ABCD$ is a rhombus. If $\angle A = 70^\circ$ then find $\angle CDB$.

3. The lengths of the diagonals of a rhombus are 24 cm and 18 cm respectively. Find the length of each side of rhombus.

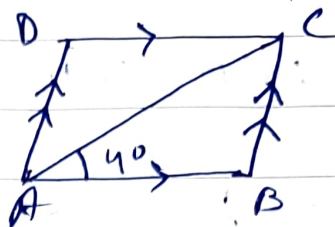
4. In parallelogram $ABCD$, if $\angle A = 2x + 35$, $\angle C = 3x - 5$. Find x and measure all angles.

5. In figure side AB of parallelogram $ABCD$ has been produced to E . If $\angle CBE = 75^\circ$ find the measure of each angle of the parallelogram.

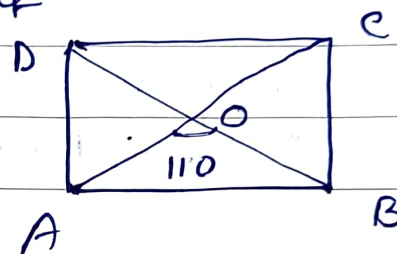


6. $ABCD$ is a parallelogram in which $AB = 8.5$ and its perimeter is 24 cm . Find length of other sides.

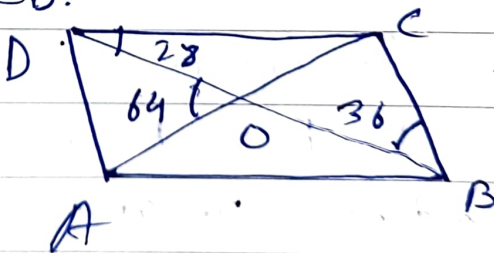
7. ABCD is a rhombus in which $\angle BAC = 40^\circ$. Find $\angle ACB$, $\angle ABC$, $\angle ADC$, $\angle ACD$, $\angle CAD$.



8. In Figure ABCD is a rectangle whose diagonals AC and BD intersect at O. If $\angle AOB = 110^\circ$, find measure of $\angle ODA$, $\angle OCD$.

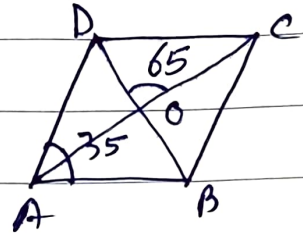


9. In figure the diagonals AC and BD of parallelogram ABCD intersect at O. If $\angle OBC = 35^\circ$, $\angle ODC = 28^\circ$ and $\angle AOD = 64^\circ$ find $\angle OAD$ and $\angle OCD$.



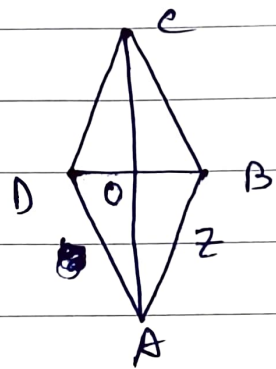
10. In a square ABCD if $AB = (3x - 8)$ cm and $BC = (x + 6)$ cm, find the value of x . Also find length of each side.

11. In figure ABCD is a parallelogram in which $\angle BAO = 35^\circ$ and $\angle COD = 65^\circ$. Find $\angle ABO$ and $\angle ODC$.

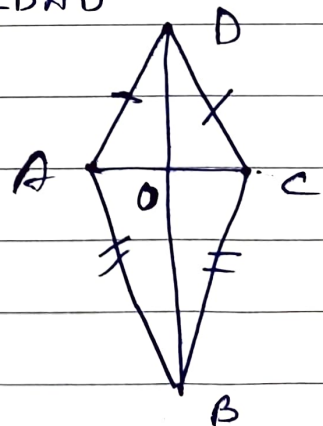


12. In figure ABCD is a rhombus. Find the values of x, y and z .

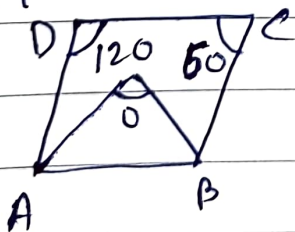
$$\begin{aligned} OB &= 5 \text{ cm}, OC = 12 \text{ cm}, \\ OD &= x \text{ cm}, OA = y, \\ AB &= z \text{ cm}. \end{aligned}$$



13. In figure ABCD is a kite. The diagonals of a kite intersect at O. If $\angle ABO = 32^\circ$ and $\angle OCD = 40^\circ$, find
i) $\angle ABC$ (ii) $\angle ADC$ (iii) $\angle BAD$.



14.



ABCD is a quadrilateral where $\angle C = 50^\circ$, $\angle D = 120^\circ$. Find $\angle AOB$.