## 8th Quadrilateral and Parallelogram Guess Questions

1. In a quadrilateral $A B C D$, the angles $\angle A, \angle B, \angle C$ and $\angle D$ are in the ratio 2:3:4:6. Find the measure of each angle of the quadrilateral.
2. Suppose $A B C D$ is a parallelogram in which $\angle A=108^{\circ}$. Calculate $\angle B, \angle C$ and $\angle D$.
3. In the figure at right, $A B C D$ is a parallelogram $\angle B A O=30^{\circ}, \angle D A O=45^{\circ}$ and $\angle C O D=105^{\circ}$. Calculate
(i) $\angle A B O$
(ii) $\angle O D C$
(iii) $\angle A C B$
(iv) $\angle C B D$

4. Find the measure of each angle of a parallelogram, if larger angle is $30^{\circ}$ less than twice the smaller angle.
5. Suppose $A B C D$ is a parallelogram in which $A B=9 \mathrm{~cm}$ and its perimeter is 30 cm . Find the length of each side of the parallelogram.
6. The length of the diagonals of a rhombus are 24 cm and 18 cm . Find the length of each side of the rhombus.
7. In the following figures, $A B C D$ is a rhombus. Find the values of $x$ and $y$.
(i)

(ii)


8. The side of a rhombus is 10 cm and the length of one of the diagonals is 12 cm . Find the length of the other diagonal.
9. In the figure at the right, $A B C D$ is a parallelogram in which the bisectors of $\angle A$ and $\angle B$ intersect at the point $P$. Prove
 that $\angle A P B=90^{\circ}$.

10 If the diagonals of a quadrilateral bisect each other, then the quadrilateral is a parallelogram.

