

BCM SCHOOL, BASANT AVENUE DUGRI, LUDHIANA

CLASS IX

SUBJECT: MATHEMATICS

ANSWER KEY OF ASSIGNMENT - CIRCLE

Q1 b) 6 cm

Q2 b) 50°

Q3 d) Assertion is false but reason is true

Q4 $\angle AOB = 2\angle ACB$

$$\angle ACB = 45^\circ$$

In triangle OAB

$$\angle OAB + \angle ABO + \angle BOA = 180^\circ$$

As the angles opposite to equal sides are equal

$$\angle OAB = 45^\circ$$

In triangle ACB

$$\angle ACB + \angle CBA + \angle CAB = 180^\circ$$

$$45^\circ + 30^\circ + \angle CAB = 180^\circ$$

$$\angle CAB = 180^\circ - 75^\circ$$

$$\angle CAB = 105^\circ$$

$$\angle CAO + \angle OAB = 105^\circ$$

$$\angle CAO = 60^\circ$$

Q5 Sum of the opposite angles in a cyclic quadrilateral is 180°

$$\text{So, } \angle ABC = 40^\circ$$

$$\angle ACB = 90^\circ \text{ (Angle in a semicircle is right angle)}$$

In triangle ABC

Using the angle sum property

$$\angle BAC = 50^\circ$$

Q6 Radius is 5.59 cm

Q7 a) $\angle COD = 120^\circ$

b) Distance between A and C is 24 cm

c) $\angle OCD = 30^\circ$



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