INDIAN SCHOOL AL WADI AL KABIR

Class X, Mathematics

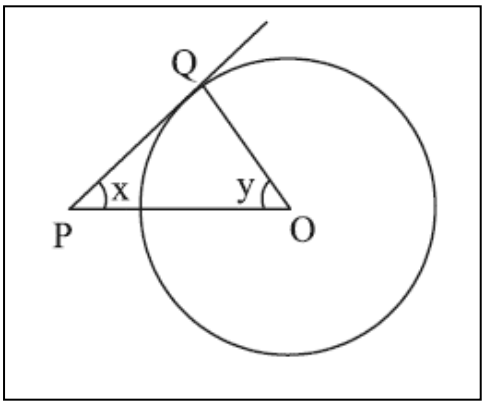
Worksheet-Circles

MCQ

Questions of 1 Mark each.

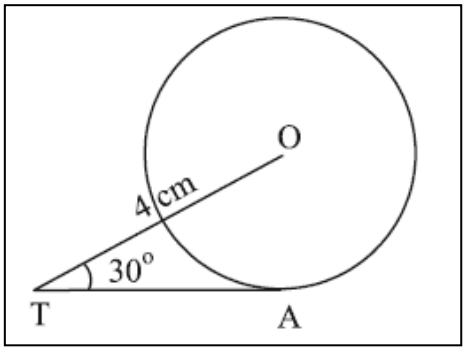
1. In the given figure, PQ is a tangent to the circle with centre O. If ∠OPQ = x, ∠POQ = y,

then x + y is:



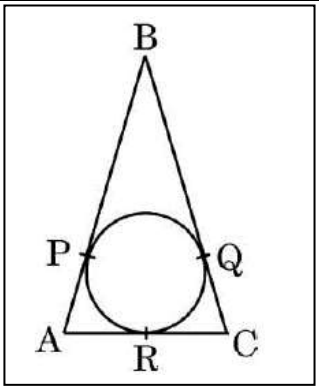
	A	90°	**B**	60°	**C**	180°	**D**	45°

2. In the given figure, TA is a tangent to the circle with centre O such that OT = 4 cm, ∠OTA = 30°, then length of TA is:

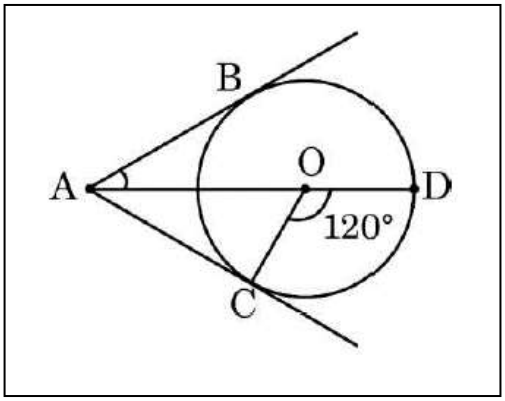
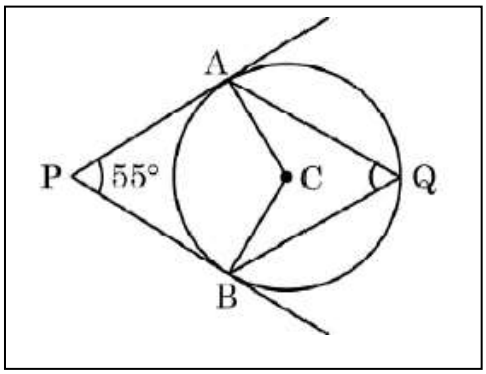
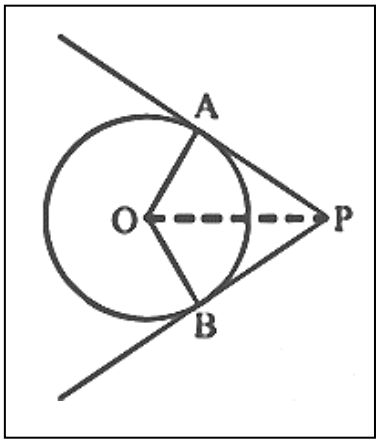


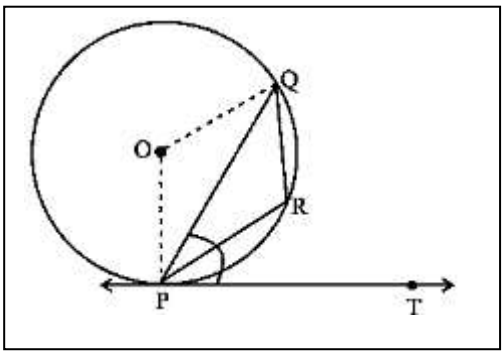
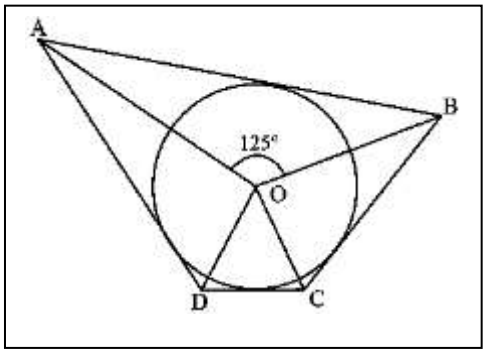
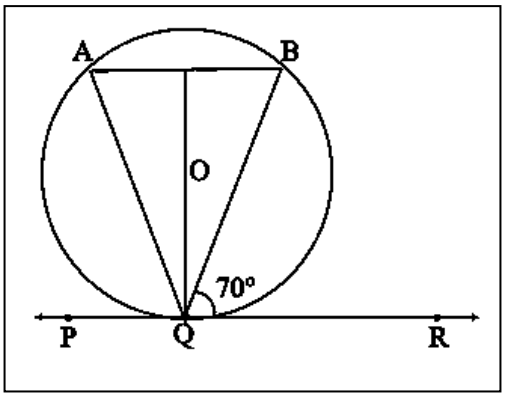
	A	$2\sqrt{3}$ cm	**B**	2 cm	**C**	$2\sqrt{2}$ cm	**D**	$\sqrt{3}$ cm

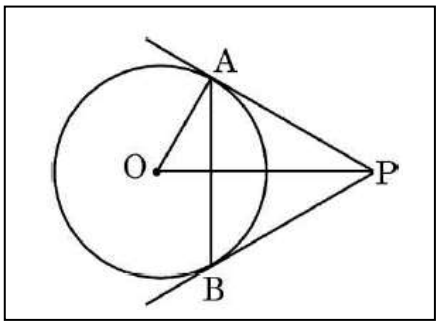
3. In the given figure, AB = BC = 10 cm. If AC = 7 cm, then the length of BP is:



	A	3.5 cm	**B**	7 cm	**C**	6.5 cm	**D**	5 cm

4.	In the given figure, AC and AB are tangents to a circle centered at O. If ∠COD = 120°, then ∠BAO is equal to: 							
	A	30°	**B**	60°	**C**	45°	**D**	90°
5.	In the given figure, PA and PB are tangents from external point P to a circle with centre C and Q is any point on the circle. Then the measure of ∠AQB is: 							
	A	$66\frac{1}{2}^{o}$	**B**	125°	**C**	55°	**D**	90°
6.	In the adjoining figure, PA and PB are tangents from a point P to a circle with centre O. Then the quadrilateral OAPB must be a: 							
	A	square	**B**	rhombus	**C**	cyclic quadrilateral	**D**	parallelogram

7.	In Fig., PQ is a chord of a circle and PT is the tangent at P such that ∠QPT = 60°. Then ∠PRQ is equal to: 							
	A	135°	**B**	150°	**C**	120°	**D**	110°
8.	In Fig., if ∠AOB = 125°, then ∠COD is equal to: 							
	A	135°	**B**	45°	**C**	25°	**D**	55°
9.	At one end A of a diameter AB of a circle of radius 5 cm, tangent XAY is drawn to the circle. The length of the chord CD parallel to XY and at a distance 8 cm from A is:							
	A	8 cm	**B**	6 cm	**C**	5 cm	**D**	4 cm
10.	In Fig., if PQR is the tangent to a circle at Q whose centre is O, AB is a chord parallel to PR and ∠BQR = 70°, then ∠AQB is equal to: 							
	A	20°	**B**	40°	**C**	35°	**D**	45°

	DIRECTION: In the question number 11 , 12 and 13, a statement of **assertion (A)** is followed by statement of **Reason (R)**. Choose the correct option. (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A) (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A) (c) Assertion (A) is true but reason (R) is false. (d) Assertion (A) is false but reason (R) is true.
11.	Assertion(A): PA and PB are tangents to the circle centred at O and ∠OPA = 30°. Then, ΔPAB is an equilateral triangle. Reason(R): Lengths of tangents from an external point to a circle are equal in length. 
12.	Assertion(A): A tangent to a circle is perpendicular to the radius through the point of contact. Reason (R): The lengths of tangents drawn from an external point to a circle are equal.
13.	Assertion(A):If PA and PB are tangents drawn from an external point P to a circle with centre O, then the quadrilateral AOBP is cyclic. Reason (R): The angle between two tangents drawn from an external point to a circle is supplementary to the angle subtended by the line segment joining the points of contact at the centre.

Answers

Answers	**1**	A	**2**	A	**3**	C	**4**	A
	5	A	**6**	C	**7**	C	**8**	D
	9	A	**10**	B				
	11	a	**12**	b	**13**	a		