Government High School, Jayanagar 9th block
Multiple Choice Questions

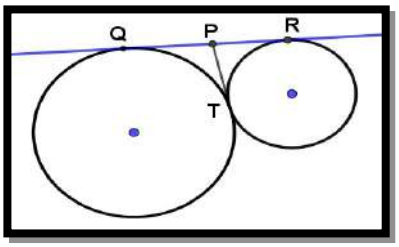
CHAPTER: Circles **UNIT: Number of tangents from a point to a circle**

CLASS: 10 **SUBJECT: Mathematics**

STUDENT NAME: **MARKS OBTAINED:**

I Four alternatives are given below choose the correct answer and write it in the space given below:

1) In the figure QR is a common tangent to given circles which meets the tangent TP at P. If QP = 3.8 cm, the length of QR is

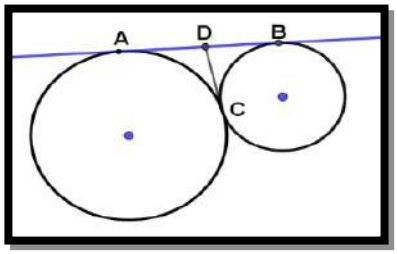


A) 7.6 cm B) 1.9 cm

C) 11.4 cm D) 5.7 cm

Answer: A) 7.6 cm

2) In the following figure, find the length of AB if CD = 2 cm.

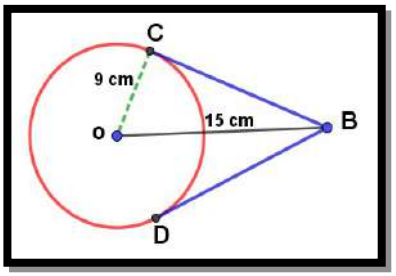


A) 2 cm B) 4 cm

C) 6 cm D) 5 cm

Answer: B) 4 cm

3) In the given figure, if OC = 9 cm and OB = 15 cm then OB + BD is equal to:

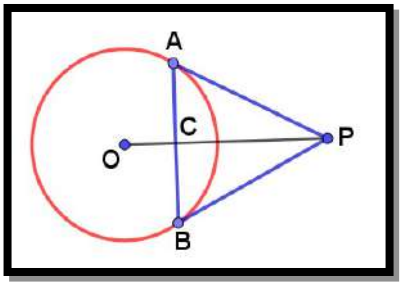


A) 23 cm B) 24 cm

C) 27 cm D) 30 cm

Answer: C) 27 cm

4) In the following figure, find AC if AB = 5 cm.

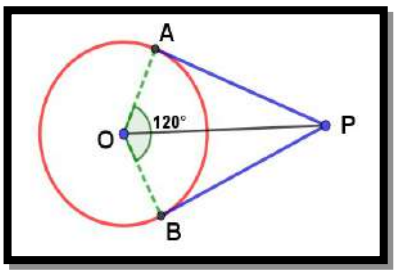


A) 2.5 cm B) 3 cm

C) 2 cm D) 1 cm

Answer: A) 2.5 cm

5) In the figure, PA and PB are tangents to a circle with centre O. If $\angle AOB = 120^0$, then $\angle OPA$ is equal to:



A) 60^0 B) 15^0

C) 30^0 D) 40^0

Answer: C) 30^0

6) If PA and PB are tangents from a point P to a circle with centre O and are inclined to each other at an angle of 80^0, then $\angle POA$ is equal to:

A) 50^0 B) 60^0 C) 70^0 D) 80^0

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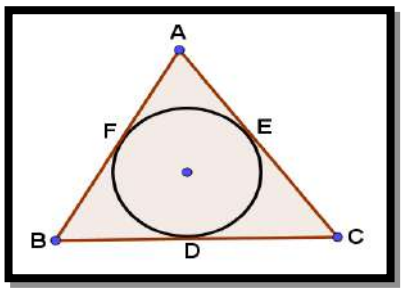
Answer: A) 50^0

7) A triangle ABC is drawn to circumscribe a circle. If AB = 13 cm, BC = 14 cm and AE = 7 cm, then AC is equal to:

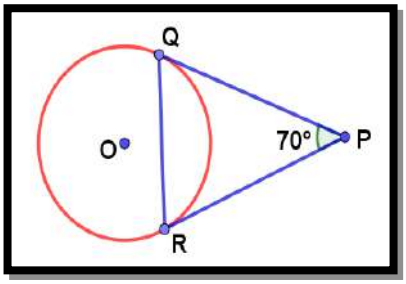


A) 12 cm B) 15 cm

C) 11 cm D) 16 cm

Answer: B) 15 cm

8) In the given figure, PQ and PR are tangents to the circle with centre O such that ∠ QPR = 70^0, then ∠ OQR is equal to:

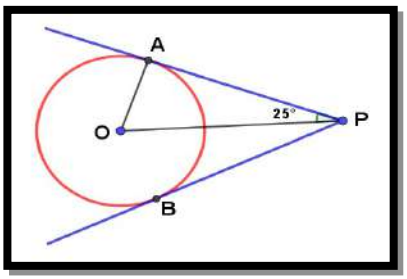


A) 25^0 B) 35^0

C) 40^0 D) 20^0

Answer: B) 35^0

9) PA and PB are tangents to the circle with centre O touching it at A and B respectively. If ∠ APO = 25^0, then ∠ POB is:

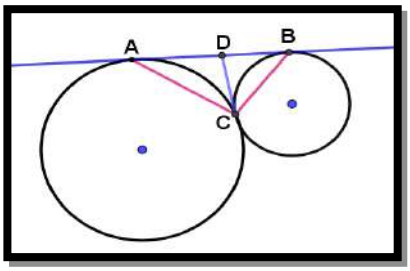


A) 65^0 B) 155^0

C) 130^0 D) 150^0

Answer: A) 65^0

10) In the following figure, find ∠ ACB.

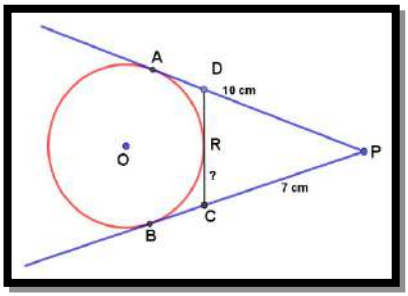


A) 60^0 B) 45^0

C) 90^0 D) 30^0

Answer: C) 90^0

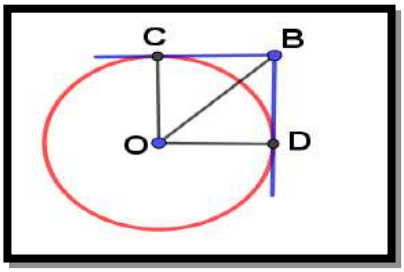
11) In the following figure, PA and PB are two tangents to circle with centre O. DRC is another tangent which touches the circle at the point R. If PA = 10 cm and CP = 7 cm, then find the length of RC.



A) 1 cm B) 2 cm C) 3 cm D) 4 cm

Answer: C) 3 cm

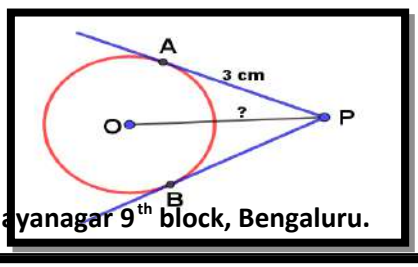
12) Two tangents BC and BD are drawn to a circle with centre O that ∠ CBD = 120^0. Then OB = _____



A) 2BC B) BC C) 3BC D) $\frac{BC}{2}$

Answer: A) 2BC

13) Two tangents PA and PB are drawn to a circle with centre O such that ∠ APB = 60^0 with AP = 3 cm, then OP is equal to:



A) $\sqrt{3}$ **cm** **B)** $\frac{\sqrt{3}}{2}$ **cm** **C) 6 cm** **D)** $2\sqrt{3}$ **cm**

Answer: D) $2\sqrt{3}$ **cm**

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