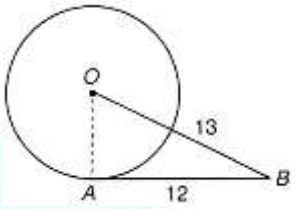
Circles : Worksheet -1

1. In the given figure, O is the centre of the circle. AB is tangent. AB = 12cm and OB=13cm. Find OA: [ ]

A] 6.5 cm B] 6 cm

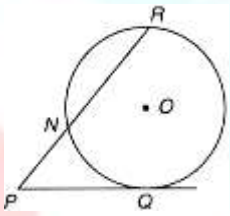
C] 5 cm D] None of these



2. In the given figure, PQ is the tangent of the circle. Line segment PQ intersects the circle at N and R. PQ = 15cm, PR = 25cm, find PN: [ ]

A] 15 cm B] 10 cm

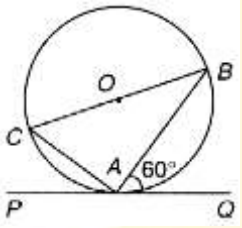
C] 9 cm D] 6 cm



3. In the given figure, PAQ is the tangent. BC is the diameter of the circle. $m\angle BAQ = 60^0$. Find $m\angle ABC$: [ ]

A] 25^0 B] 30^0

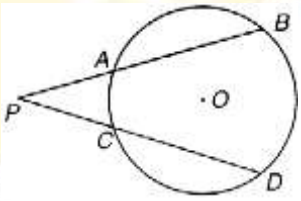
C] 45^0 D] 60^0



4. In the given figure, AP = 3cm, BA = 5cm and CP = 2cm. Find CD [ ]

A] 12 cm B] 10 cm

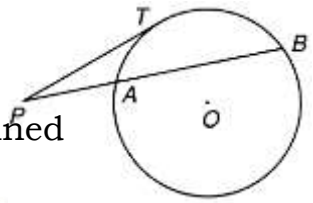
C] 9 cm D] 6 cm



5. In the given figure, tangent PT = 5 cm, PA = 4 cm , find AB: [ ]

A] $\frac{7}{4}$ cm B] $\frac{11}{4}$ cm

C] $\frac{9}{4}$ cm D] Can't be determined



6. Two circles of radii 13cm and 5cm touch internally each other. Find the distance between their centres: [ ]

A] 18 cm B] 10 cm

C] 9 cm D] 8 cm

7. Three circles touch each other externally. The distance between their centre is 5cm, 6cm and 7cm. Find the radii of the circles: [ ]

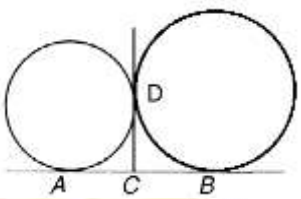
A] 2 cm, 3 cm, 4 cm B] 3 cm, 4 cm, 1 cm

C] 1 cm, 2.5 cm, 3.5 cm D] 1 cm, 2 cm, 4 cm

8. In the given figure, AB and CD are two common tangents to the two touching circle. If CD = 6 cm, then AB is equal to: [ ]

A] 9 cm B] 15 cm

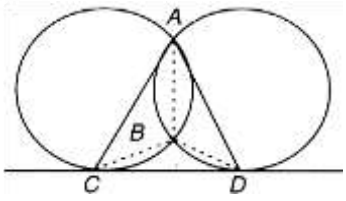
C] 12 cm D] None of the above



9. In the given figure, CD is a direct common tangent to two circles intersecting each other at A and B, then $\angle CAD + \angle CBD = ?$ [ ]

A] 120^0 B] 90^0

C] 360^0 D] 180^0



10. In a circle of a radius 5 cm, AB and AC are the two chords such that AB =AC=6cm. Find the length of the chord BC: [ ]

A] 4.8 cm B] 10.8 cm C] 9.6 cm D] None of these

11. If two circles are such that the centre of one lies on the circumference of the other, then the ratio of the common chord of two circles to the radius of any of the circles is: [ ]

A] $\sqrt{3}:2$ B] $\sqrt{3}:1$ C] $\sqrt{5}:1$ D] None of these

12. Two circles touch each other internally. Their radii are 2cm and 3cm. The biggest chord of the other circle which is outside the inner circle, is of length: [ ]

A] $2\sqrt{2}$ cm B] $3\sqrt{2}$ cm C] $2\sqrt{3}$ cm D] $4\sqrt{2}$ cm