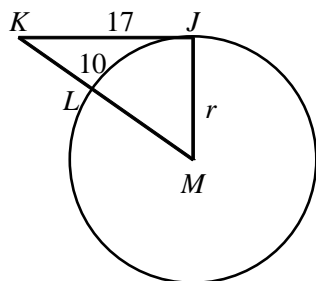


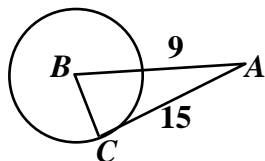
G.G.50: Investigate, justify, and apply theorems about tangent lines to a circle: a perpendicular to the tangent at the point of tangency; two tangents to a circle from the same external point; common tangent of two non-intersecting or tangent circles

1. \overline{KJ} is tangent to $\odot M$ at J (not drawn to scale). Find the length of the radius r , to the nearest tenth.



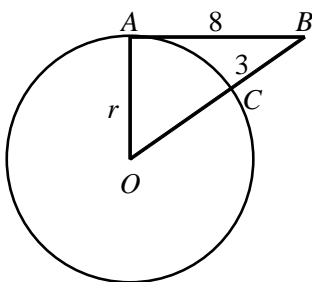
[A] 18.9 [B] 9.4 [C] 10.8 [D] 19.7

2. Find $m\angle A$.

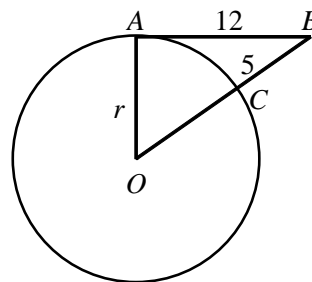


[A] 47 [B] 28 [C] 62
[D] 90 [E] none of the above

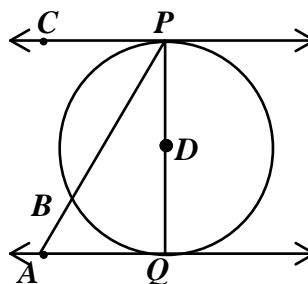
3. \overline{AB} is tangent to $\odot O$ at A (not drawn to scale). Find the length of the radius r , to the nearest tenth.



4. \overline{AB} is tangent to $\odot O$ at A (not drawn to scale). Find the length of the radius r , to the nearest tenth.



5. Circle D has radius 3 with tangents \overleftrightarrow{PC} and \overleftrightarrow{QA} . $m\widehat{PB} = 120$. Find AP .



6. In order to find the distance across a circular pond, Tim sights a tangent to the circle and a line from the same point to the circle's center. If the length of the tangent segment is 15 yd and the distance to the edge of the circle from the point is 3 yd, what is the diameter of the pond?

Geometry Practice: Tangents #1

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[1] B

[2] B

[3] 9.2

[4] 11.9

[5] $4\sqrt{3}$

[6] 72 yd