### Lesson 3 Practice Problems

1. Line $BD$ is tangent to a circle with diameter $AB$. Explain why the measure of angle $BCA$ must equal the measure of angle $ABD$.
* 
1. Line $AC$ is perpendicular to the circle centered at $O$ with radius 1 unit. The length of $AC$ is 1.5 units. Find the length of segment $AB$.
* 
1. *Technology required.* Line $PD$ is tangent to a circle of radius 1 inch centered at $O$. The length of $PD$ is 1.2 inches. The length of $AB$ is 1.7 inches. Which point on the circle is closest to point $P$?
* 
	1. point $A$
	2. point $B$
	3. point $C$
	4. point $D$
1. The arc from $A$ to $B$ not passing through $C$ measures 50 degrees. Select **all** the true statements.
* 
	1. Angle $BCA$ measures 50 degrees.
	2. Angle $BCA$ measures 25 degrees.
	3. Angle $BOA$ measures 50 degrees.
	4. The arc from $B$ to $C$ not passing through $A$ measures 180 degrees.
	5. Angles $CBO$ and $CAO$ are congruent.
* (From Unit 7, Lesson 2.)
1. Chords $AC$ and $DB$ intersect at point $E$. List 3 pairs of angles that *must* be congruent.
* 
* (From Unit 7, Lesson 2.)
1. The image shows a circle with diameters $AC$ and $BD$. Prove that chords $BC$ and $AD$ (not drawn) are congruent.
* 
* (From Unit 7, Lesson 1.)
1. The line represented by $y+3=-3\left(x+6\right)$ is transformed by the rule $\left(x,y\right)\rightarrow \left(-x,-y\right)$. What is the slope of the image?
	1. 3
	2. $\frac{1}{3}$
	3. $-\frac{1}{3}$
	4. -3
* (From Unit 6, Lesson 12.)



© CC BY 2019 by Illustrative Mathematics®