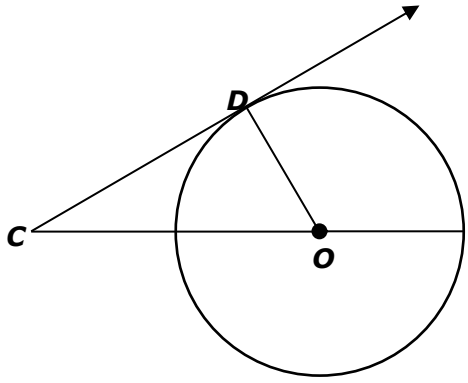
Name _____ Date _____

Angle Relationships in Circles

Lesson Quiz

1 $\overleftrightarrow{CD}$ is tangent to $\odot O$ at point D. Which of the following is true?



A $\angle DCO \cong \angle DOC$

B $\triangle CDO$ is a right triangle.

C $m\angle COD = 60°$.

D $\overline{CD} \cong \overline{CO}$

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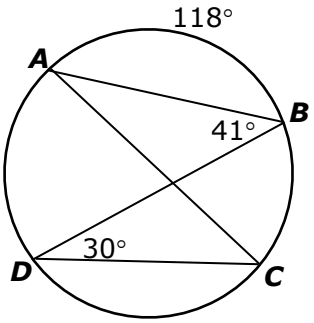
2 What is $m\overset{\frown}{DC}$?



A 100°

B 82°

C 118°

D 71°

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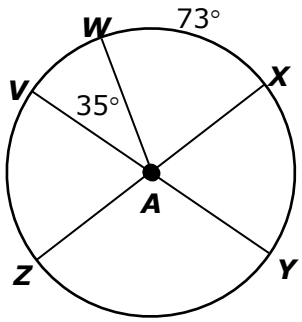
3 What is $m\overset{\frown}{VZ}$ of $\odot A$ if $\overline{XZ}$ is a diameter of $\odot A$?



A 70°

B 73°

C 72°

D 36°

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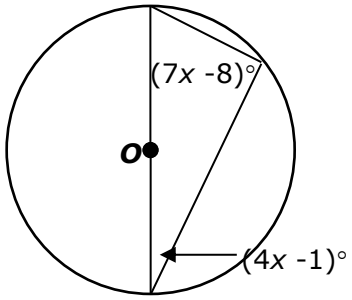
4 What is the value of x?



A $x = 27$

B $x = 14$

C $x = 2$

D $x = 7$

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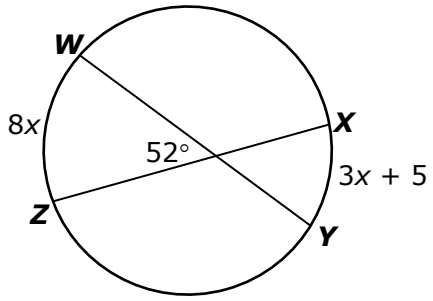
5 Which equation can be used to find $m\overset{\frown}{XY}$?



A $8x = \frac{1}{2}(52 + (3x + 5))$

B $3x + 5 = \frac{1}{2}(52 + 8x)$

C $52 = \frac{1}{2}(8x + (3x + 5))$

D $52 = \frac{1}{2}(8x - (3x + 5))$

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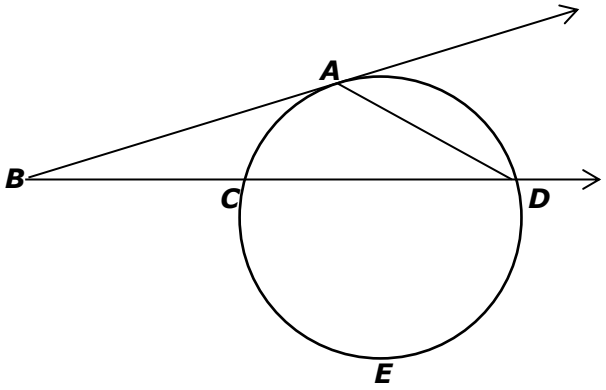
6 In the figure below, $m\overset{\frown}{CED} = 215°$, $m\overset{\frown}{AD} = 110°$ and $m\angle BAD = 135°$



What is $m\angle ABC$?

A 72.5°

B 80°

C 27.5°

D 37.5°

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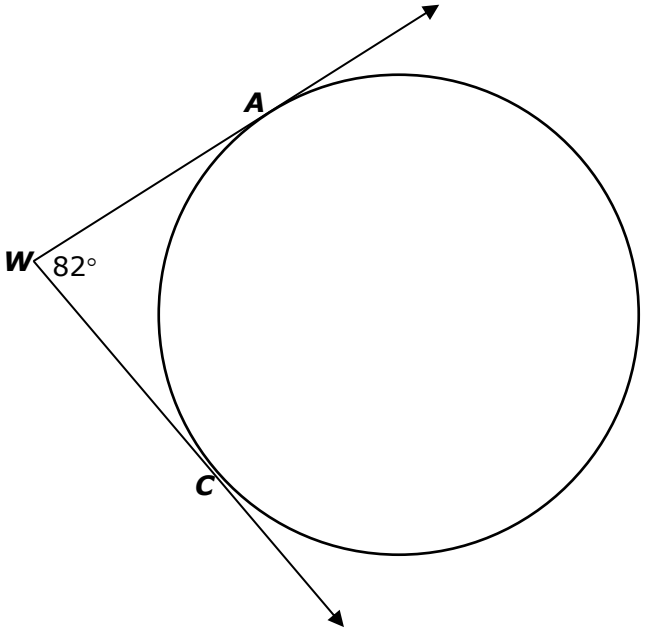
7 What is $m\overset{\frown}{AC}$ if $m\angle AWC = 82^\circ$ and $\overrightarrow{WA}$ and $\overrightarrow{WC}$ are both tangents to the circle shown?



A 98°

B 164°

C 139°

D 262°

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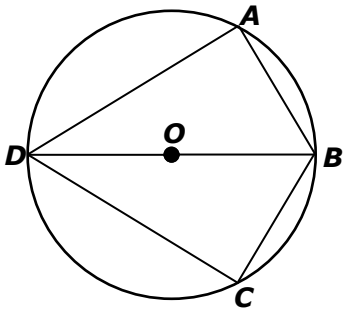
8 Quadrilateral *ABCD* is inscribed in $\odot O$ and $\overline{BD}$ is a diameter. Which two angles are congruent?



A $\angle BAD \cong \angle ABC$

B $\angle ABC \cong \angle ADB$

C $\angle DCB \cong \angle BDA$

D $\angle DAB \cong \angle BCD$

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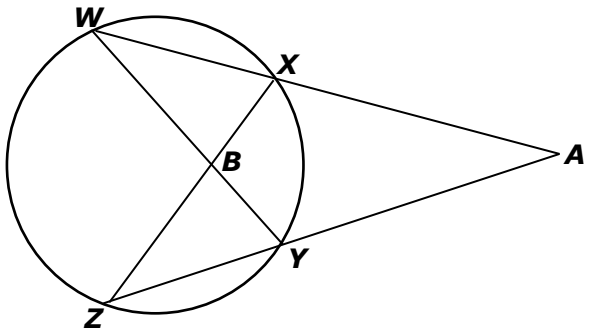
9 In the diagram below, $m\angle XAY = 33°$ and $m\angle WBZ = 74°$.



What is mXY ?

A 66°

B 41°

C 37°

D 54°

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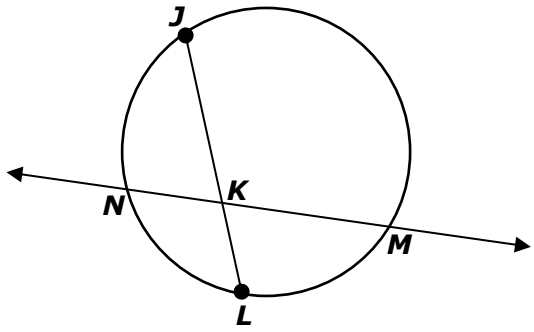
10 Which expression can be used to find $m\angle MKL$?



A $2(m\overset{\frown}{NL} + m\overset{\frown}{LM})$

B $2(m\overset{\frown}{LM} + m\overset{\frown}{NJ})$

C $\frac{1}{2}(m\overset{\frown}{LM} - m\overset{\frown}{JN})$

D $\frac{1}{2}(m\overset{\frown}{LM} + m\overset{\frown}{JN})$

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