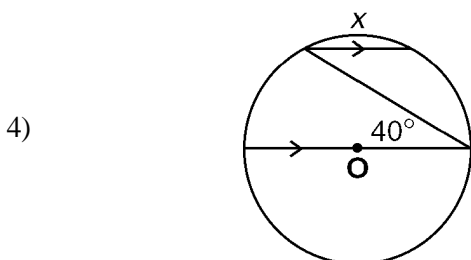
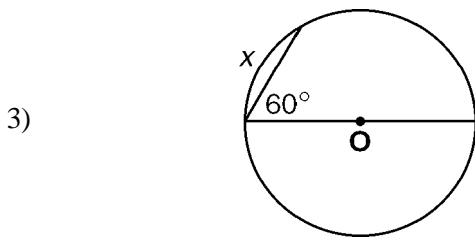
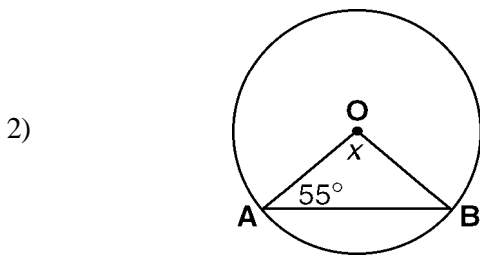
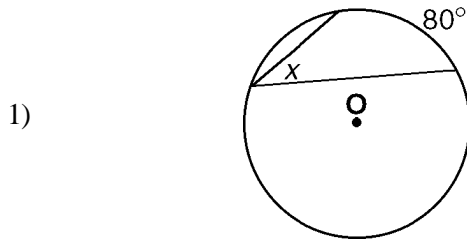


Name: _____
 CC Geometry

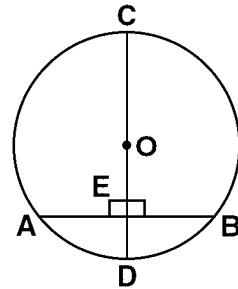
Circle Geometry - Review for Quiz

Questions 1 through 4 refer to the following:

For the given circle, find the value of x .

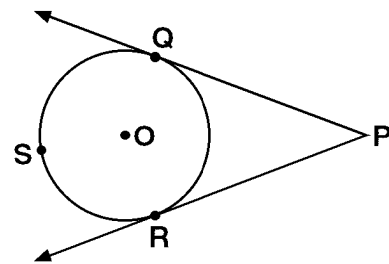


5) In the diagram below, diameter $\overline{CD} \perp$ chord \overline{AB} .



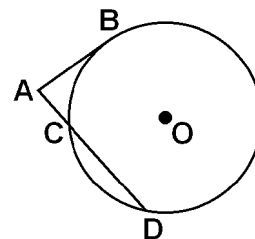
If $AB = 12$ and $CE = 9$, find ED .

6) Tangents \overrightarrow{PQ} and \overrightarrow{PR} are drawn to circle O from P in the figure below.



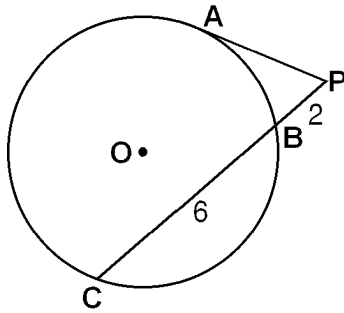
If $m\widehat{QSR} = 240^\circ$, find $m\angle P$.

7) In the accompanying diagram, \overline{AB} is tangent to circle O and secant \overline{ACD} is drawn.



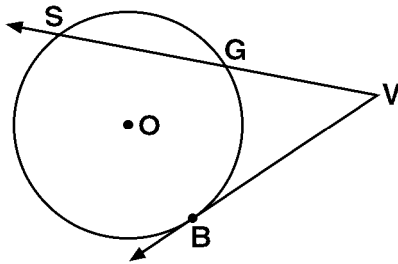
If $AB = 4$ and $AD = 8$, find AC .

- 8) In the accompanying diagram of circle O, \overline{PA} is a tangent and \overline{PBC} is a secant.



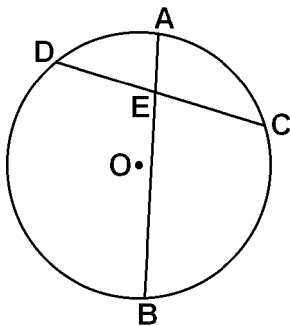
If $PB = 2$ and $BC = 6$, find PA .

- 9) In the diagram below, secant \overline{VS} and tangent \overline{VB} are drawn to circle O.



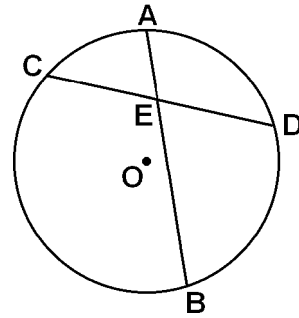
If $m\widehat{SB} = 170^\circ$ and $m\widehat{GB} = 90^\circ$, find $m\angle V$.

- 10) In the accompanying diagram of circle O, chord \overline{AB} bisects chord \overline{DC} at E.



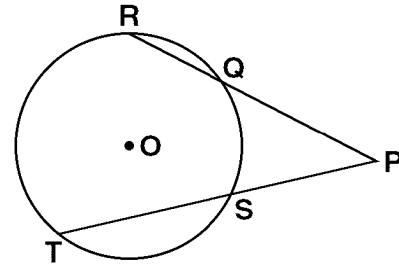
If $AE = 2$ and $EB = 8$, find the length of chord \overline{DC} .

- 11) In the accompanying diagram of circle O, chords \overline{AB} and \overline{CD} intersect at point E.



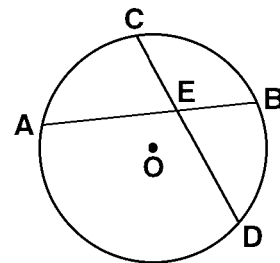
If $AE = 2$, $CD = 9$, and $CE = 4$, find BE .

- 12) In the diagram below, secant segments \overline{PR} and \overline{PT} intersect at P.



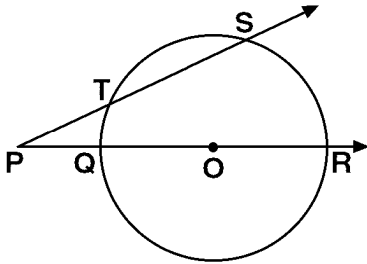
If $PR = 14$, $PQ = 6$, and $PS = 4$, find PT .

- 13) In the above diagram, chords \overline{AB} and \overline{CD} intersect at point E in circle O.



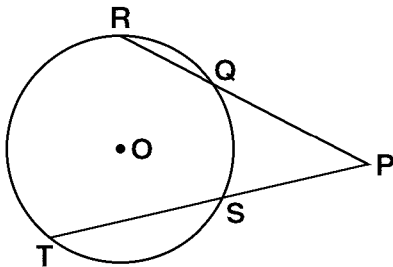
If $AE = 6$, $CE = 8$, and $ED = 3$, find EB .

- 14) Secants \overline{PR} and \overline{PS} are drawn to circle O from P in the figure below.



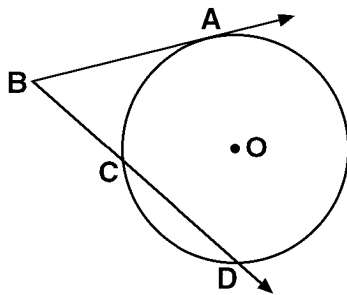
If $m\widehat{TQ} = 20^\circ$, $m\widehat{TS} = 90^\circ$, find $m\angle P$.

- 15) In the diagram below, secant segments \overline{PR} and \overline{PT} intersect at P.



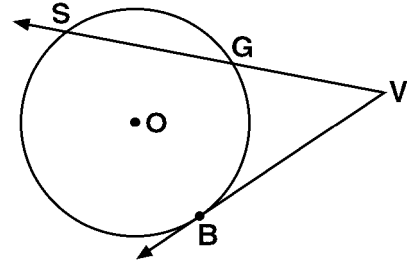
If $PR = 24$, $QR = 16$, and $PT = 16$, find PS.

- 16) In the diagram below, \overline{BA} is tangent to circle O at A and \overline{BD} is a secant.



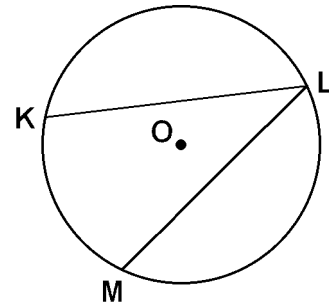
If $AB = 12$ and $BC = 9$, find BD.

- 17) In the diagram below, secant \overline{VS} and tangent \overline{VB} are drawn to circle O.



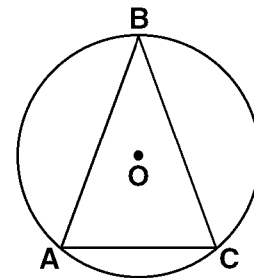
If $m\angle V = 33^\circ$ and $m\widehat{SB} = 165^\circ$, find \widehat{GB} .

- 18) In the accompanying diagram of circle O, the measure of $\angle KLM$ is 38° .



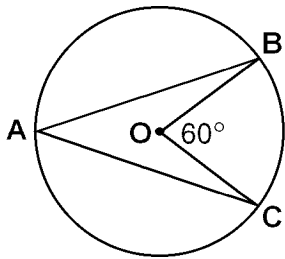
What is the number of degrees in the measure of \widehat{KM} ?

- 19) In the diagram below, chord $\overline{AB} \cong$ chord \overline{BC} .



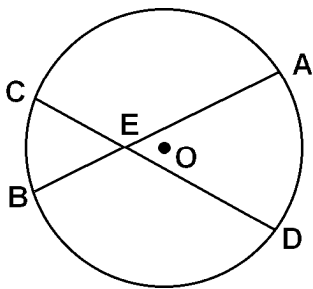
If $m\angle B = 52^\circ$, find $m\angle C$.

- 20) In the accompanying figure, central angle BOC measures 60° .



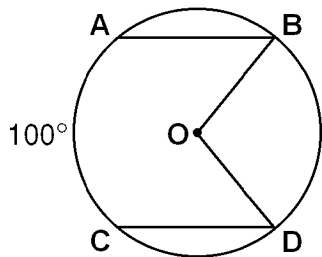
What is the number of degrees in the measure of inscribed angle BAC?

- 21) In the accompanying diagram, chords \overline{AB} and \overline{CD} intersect at E.



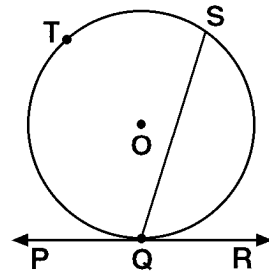
If $m\widehat{AD} = 70^\circ$ and $m\widehat{BC} = 40^\circ$, find $m\angle AED$.

- 22) In the accompanying diagram of circle O, chord \overline{AB} is parallel to chord \overline{CD} .



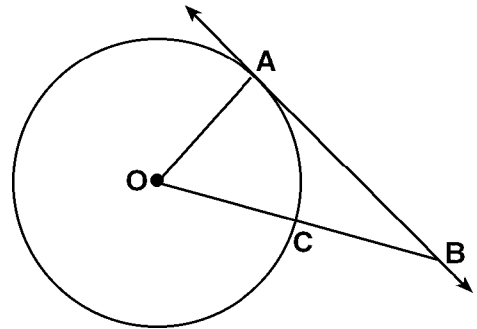
If $m\widehat{AC} = 100^\circ$, find $m\angle BOD$.

- 23)



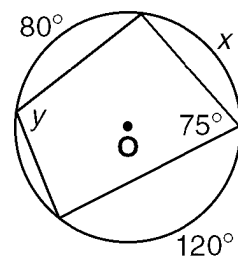
If $m\widehat{QS} = 110^\circ$, find $m\angle SQR$.

- 24) In the accompanying diagram, \overline{BA} is tangent to circle O at A. Radii \overline{OA} and \overline{OC} are drawn, and \overline{OC} is extended to intersect \overline{BA} at B.

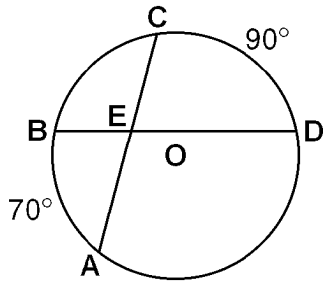


If $BA = 15$ and $OB = 17$, find the measure of a radius of circle O.

- 25) For the given circle, find the value of x and y.

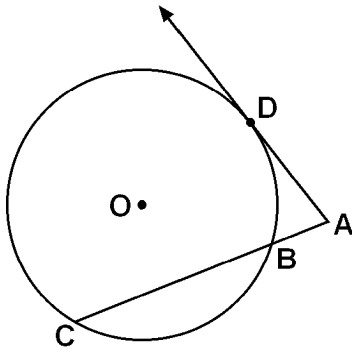


- 26) In the accompanying diagram, \overline{AC} and \overline{BD} are chords of circle O and intersect at E.



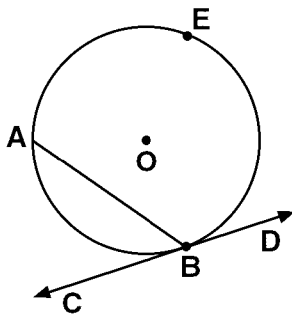
If $m\widehat{AB} = 70^\circ$ and $m\widehat{CD} = 90^\circ$, find $m\angle BEA$.

- 27) In the accompanying figure, \overline{AD} is tangent to circle O at D and \overline{ABC} is a secant.



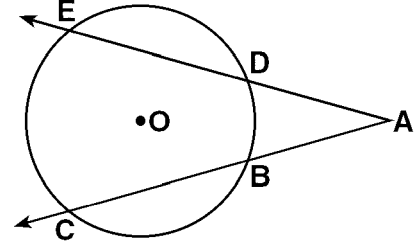
If $AD = 4$ and $AC = 8$, find AB .

- 28) \overline{AB} is a chord in circle O and \overline{CD} is tangent at B.



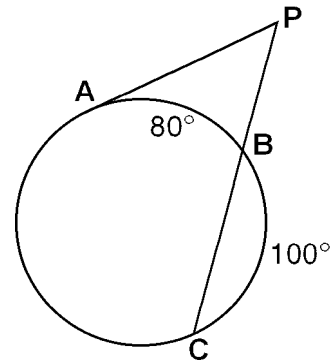
If $m\angle ABC = 56^\circ$, find $m\widehat{AB}$, $m\widehat{AEB}$, and $m\angle ABD$.

- 29) In the diagram below, \overline{AE} and \overline{AC} are secants to circle O from A.



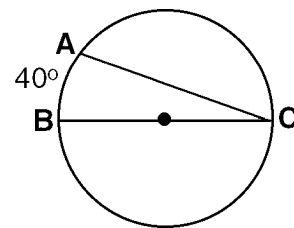
If $m\angle A = 20^\circ$ and $m\widehat{DB} = 60^\circ$, find $m\widehat{EC}$.

- 30) In the diagram below, \overline{PA} is tangent to the circle at A and \overline{PBC} is a secant.



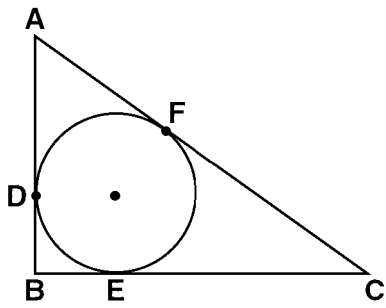
If $m\widehat{AB} = 80^\circ$ and $m\widehat{BC} = 100^\circ$, what is $m\angle APB$?

- 31) In the accompanying diagram, the measure of arc AB is 40° .



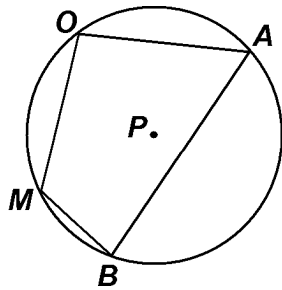
What is the measure of inscribed angle $\angle ACB$?

32)



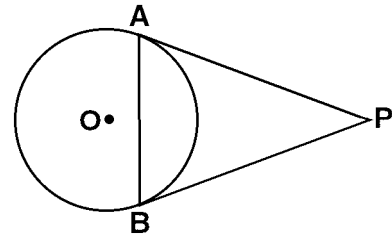
If $AD = 3$, $DB = 2$, and $BC = 8$, find AC .

33) Quadrilateral $MOAB$ is inscribed in circle P below.



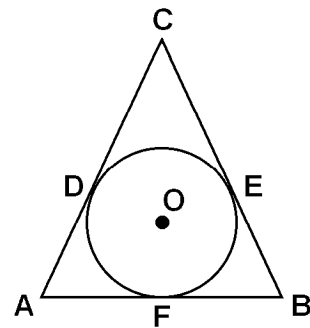
If $m\angle O = (5x + 18)^\circ$ and $m\angle B = (6x - 14)^\circ$, find $m\widehat{MOA}$. [Show all work.]

34) In the diagram below, \overline{PA} and \overline{PB} are tangents to circle O from P and chord \overline{AB} is drawn.



If $m\angle P = 50^\circ$, find $m\angle PAB$.

35) In the accompanying diagram, circle O is inscribed in $\triangle ABC$ so that the circle is tangent to \overline{AB} at F , to \overline{BC} at E , and to \overline{AC} at D .



If $AF = FB = 5$ and $DC = 7$, find the perimeter of $\triangle ABC$. [Show all work.]

- 1) 40°
- 2) 70°
- 3) 60°
- 4) 20°
- 5) 4
- 6) 60°
- 7) 2
- 8) 4
- 9) 40°
- 10) 8
- 11) 10
- 12) 21
- 13) 4
- 14) 25°
- 15) 12
- 16) 16
- 17) 99°
- 18) 76°
- 19) 64°
- 20) 30°
- 21) 55°
- 22) 100°
- 23) 55°
- 24) 8
- 25) $x = 90^\circ, y = 105^\circ$
- 26) 80°
- 27) 2
- 28) $m\widehat{AB} = 112^\circ, m\widehat{AEB} = 248^\circ, m\angle ABD = 124^\circ$

29) 100°

30) 50°

31) 20°

32) 9

33) $m\widehat{MOA} = 164^\circ$

WORK SHOWN: $5x + 18 + 6x - 14 = 180$, $11x = 176$, $x = 16$; $m\angle MBA = 6(16) - 14 = 82^\circ$; $m\widehat{MOA} = 2(82) = 164$

34) 65°

35) 34

WORK SHOWN: Tangent segments from the same external point are congruent, so $AF = AD = 5$ and $FB = BE = 5$.;
 $P = 4(5) + 2(7) = 20 + 14 = 34$