

TANGENT LINES

1) A tangent line is a line that _____.

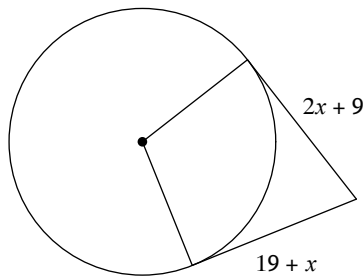
Example:

2) If two lines are tangent to the same circle, and originate from the same exterior point, then the segments are _____.

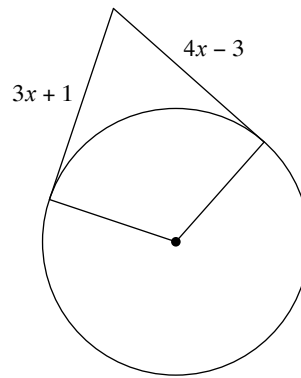
Example:

Solve for x . Assume that lines which appear to be tangent are tangent.

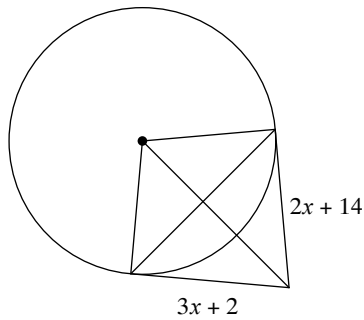
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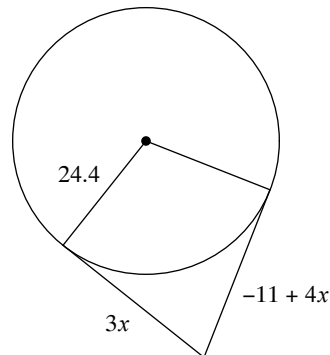
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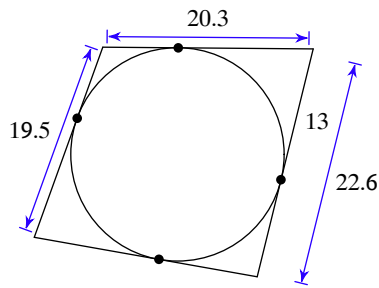


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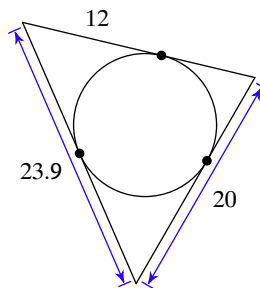


Find the perimeter of each polygon. Assume that lines which appear to be tangent are tangent.

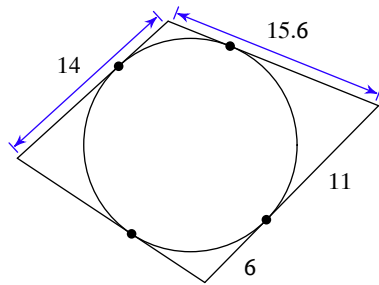
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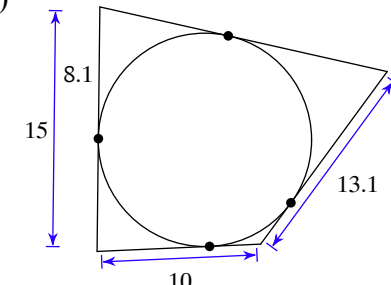
8)



9)



10)



CIRCUMSCRIBED ANGLES

11) A circumscribed angle is formed by two _____ lines whose vertex is _____ of the circle.

**The measure of a circumscribed angle is equal to _____.

Draw an example of the listed angle type. Below each picture, write out the formula for finding the measure of the angle.

12) Central Angle

13) Inscribed Angle

14) Circumscribed Angle

Use what you know about the definitions of circumscribed and inscribed to answer the following questions.

15) Draw a triangle inscribed in a circle.

16) Draw a square circumscribed about a circle.

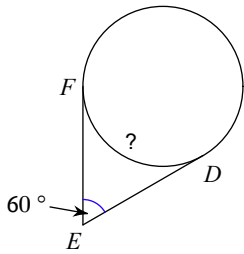
17) Draw a triangle circumscribed about a square.

18) Draw a 5-point star inscribed in a circle.

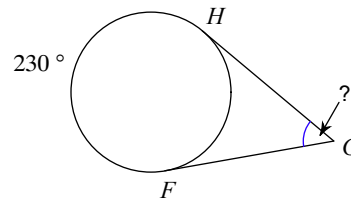
19) Describe the difference between a circle circumscribed about a triangle, and a triangle inscribed in a circle. Use pictures to back up your logic.

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

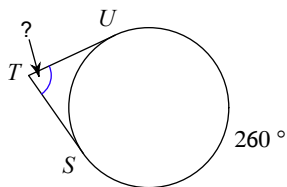
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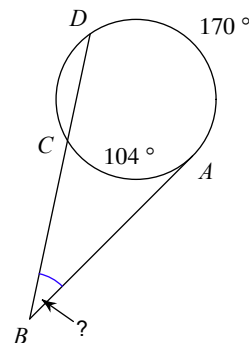
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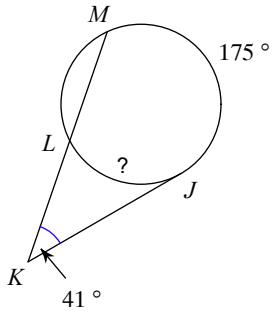
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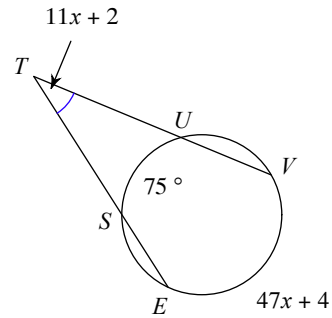
23)



24)



25) Find $m\angle VTE$



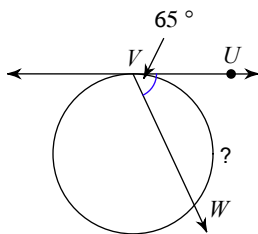
26) A _____ line is a line that intersects the circle _____.

The measure of an angle formed by a _____ and a _____

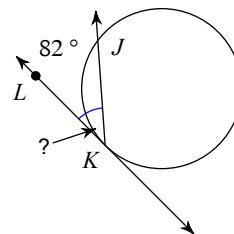
is equal to _____.

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

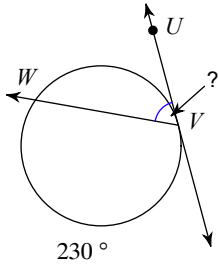
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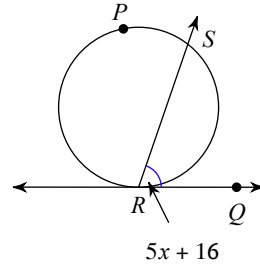
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29)

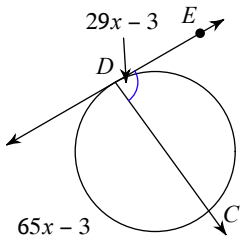


30) $m\widehat{SPR} = 18x + 20$
Find $m\widehat{SPR}$



Solve for x . Assume that lines which appear tangent are tangent.

31)



32)

