Unit 6 Bare Necessities - Circles

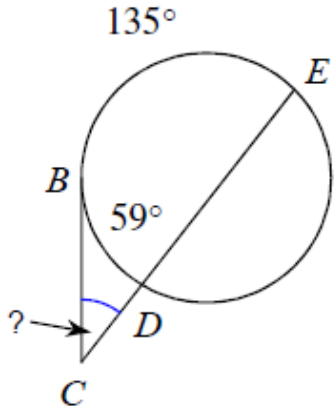
Arcs and Angles of Circles

$$angle = \frac{big\ arc - little\ arc}{2}$$

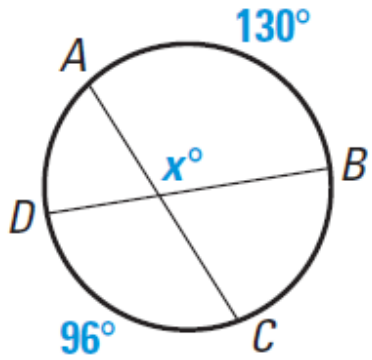
$$angle = \frac{arc + other\ arc}{2}$$

All together!!

EX1.

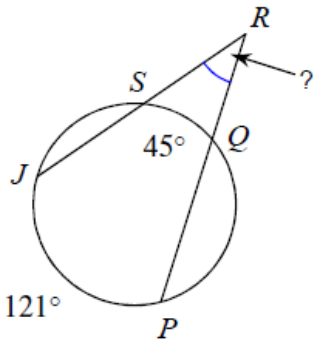


EX2.



You try!!

1.



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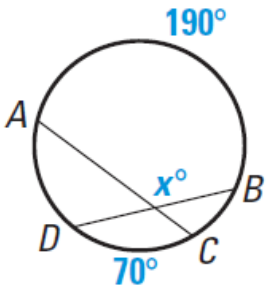
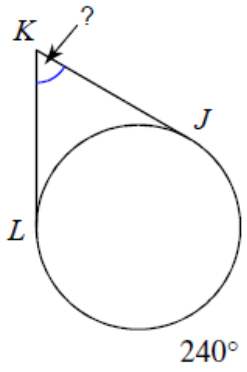


3.



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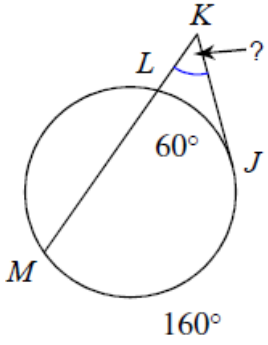

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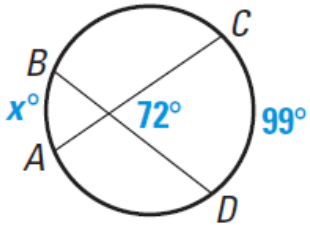

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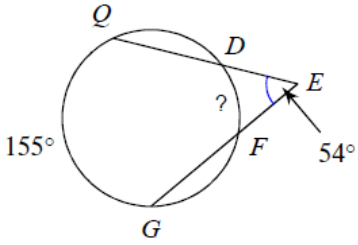


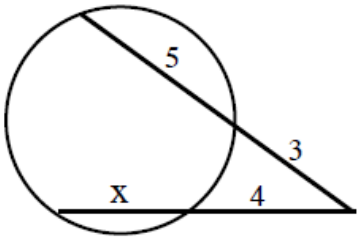
Lengths with Circles

outside • whole length = outside • whole length

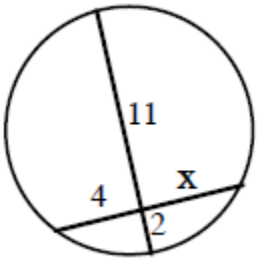
one piece • other = one piece • other

All together!!

EX3.

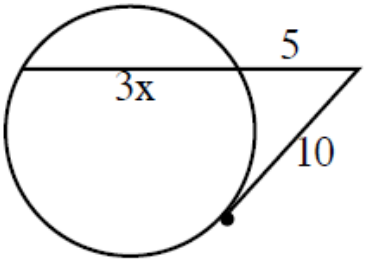


EX4.

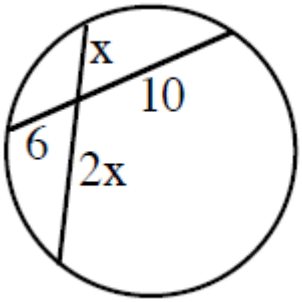


You try!!

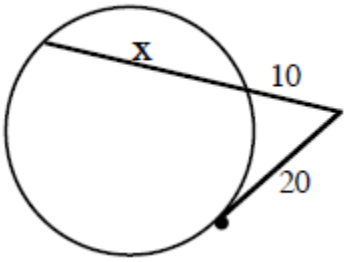
7.



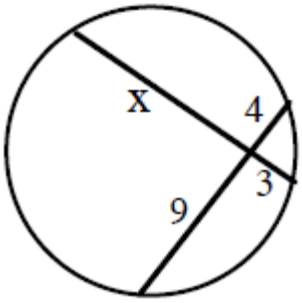
8.



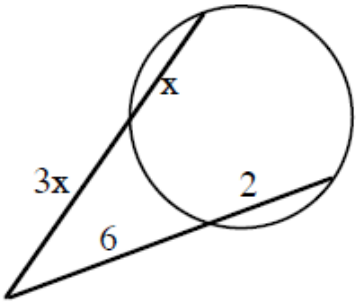
9.



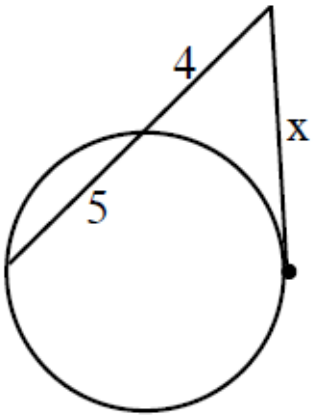
10.



11.



12.



Equation of a Circle

$(x - h)^2 + (y - k)^2 = r^2$ center: (h, k)

radius: r

All Together!!

EX5. $(x - 3)^2 + (y - 5)^2 = 81$

EX6. $x^2 + y^2 + 12x - 4y + 31 = 0$

You Try!!

Determine the center and radius.

13. $(x + 4)^2 + (y - 8)^2 = 144$

14. $x^2 + (y + 7)^2 = 1$

15. $x^2 + y^2 + 16x + 2y + 16 = 0$

16. $x^2 + y^2 - 6x + 8y - 11 = 0$