

Angles and Arcs formed by Intersecting Chords

www.mathwarehouse.com/geometry/circle/angles-of-intersecting-chords-theorem.php

Circle Formulas and Links: <http://www.mathwarehouse.com/geometry/circle/>

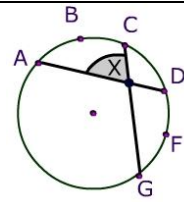
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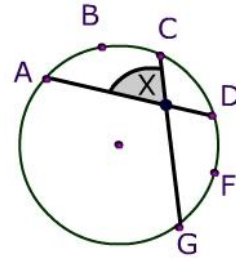
Warm Up → Explain why $x \neq \frac{1}{2}ABC$



The formula

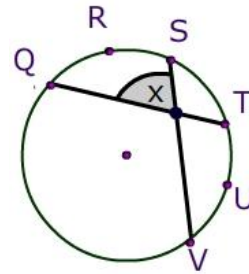
Angle of Intersecting Chords

X =

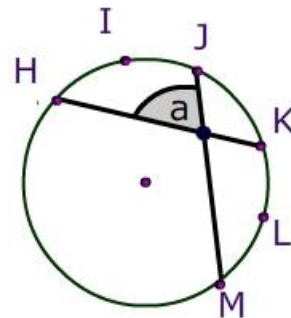


Problems

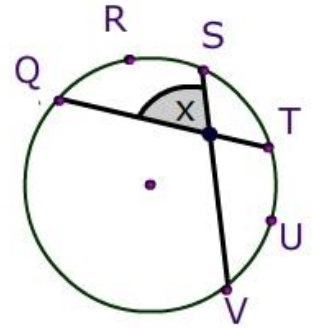
1) What is X?



2) $m\angle a = 80^\circ$, and arc HIJ = 70°



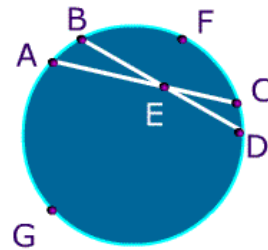
3) The ratio of arc QRS to arc TUV is 2:3 and $m\angle x = 90^\circ$, what is the measure of arc QRS and arc TUV?



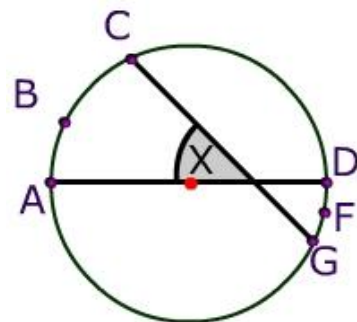
4) What is $m\angle AEB$ and $m\angle CED$?

$$m\widehat{AB} = 30^\circ$$

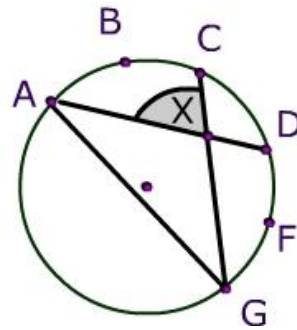
$$m\widehat{CD} = 25^\circ$$



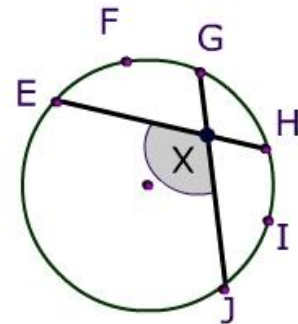
5) AD is a diameter arc ABC: arc CD: arc DFG : AG is 2 : 3: 1 : 4 .
What is X?



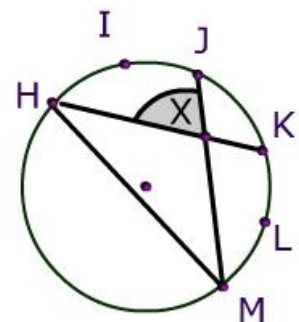
6) $\angle AGC = 30^\circ$, $\angle DFG = 70^\circ$
 what is $m\angle x$?

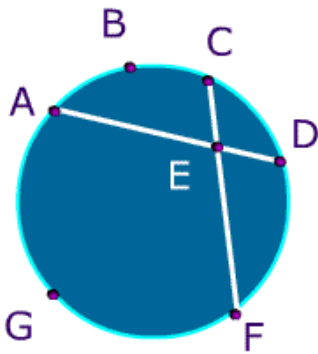


7) Measure of arc EFG = 100° and arc HIJ = 110° , what is $m\angle x$?



8) $m\angle KHM = 50$, $m\angle JMH = 45$, what is $m\angle x$?





Think Pair Share

What is wrong with the problem on the right?
 $m\angle AEC = 70^\circ$ Explain.

$$AGF = 170^\circ$$

$$CD = 40^\circ$$

Explanation:

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