

Teaching Notes for Geometry

Homework #11

Overview: In this lesson, students will about circles and angular measurements.

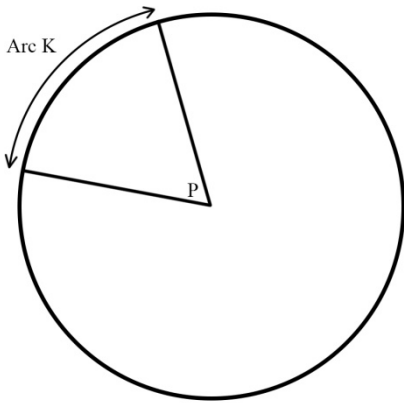
Preparation: Watch the video “circles and angles.”

The “formulas” we give students for these problems are more of an idea and a plug and chug kind of a thing. For the volume of the prism, it is just the area of the top polygon times the height of the prism. For the surface area, it’s the area of the top polygon times 2 (because the top and the bottom are the same) plus the perimeter of the top polygon times the height of the prism.

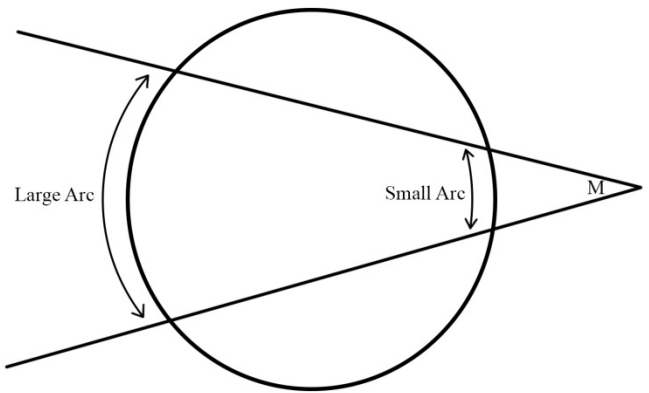
Start by providing the students with the following. I like to number them as a class so we can refer to them by number and everyone knows which one we are talking about.

Classroom Examples:

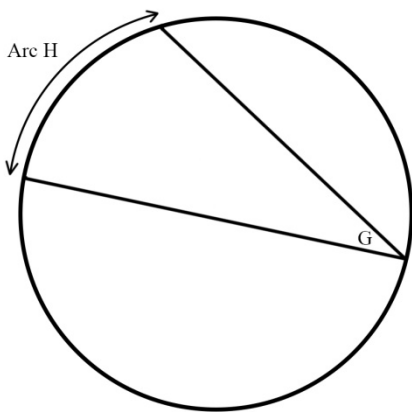
Angle P = Arc K



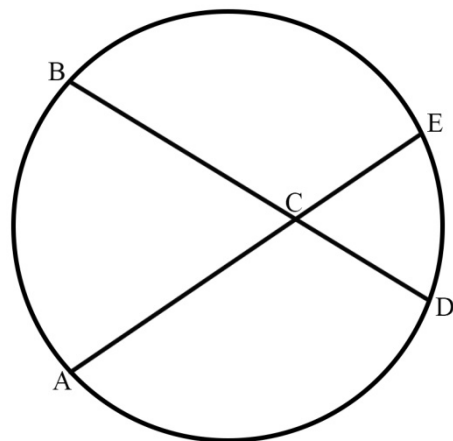
Angle M = (Large Arc – Small Arc) ÷ 2



Angle G = Arc H ÷ 2



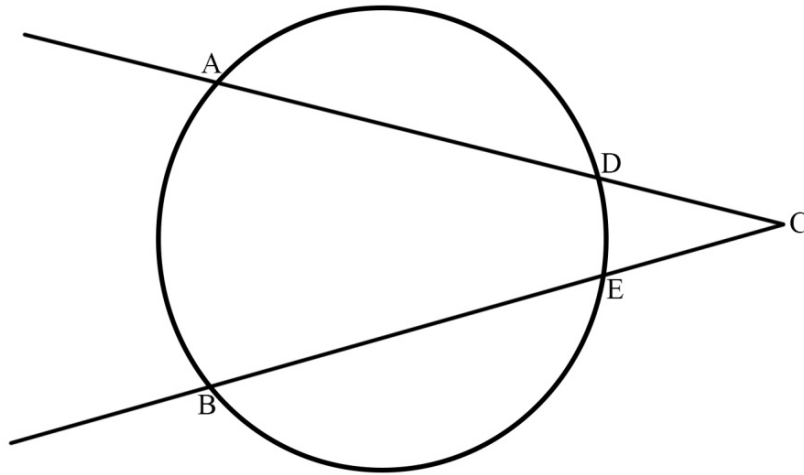
Angle C = (Large Arc + Small Arc) ÷ 2



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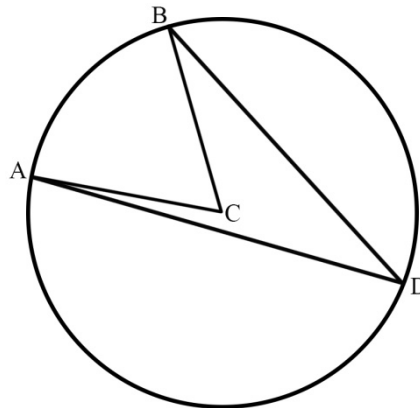
Sample Problems:

- 1) In the following circle, determine the size of angle ACB if the angular measure of minor arc AB = 79° and the angular measure of minor arc DE = 31° .



the size of angle ACB = 24°

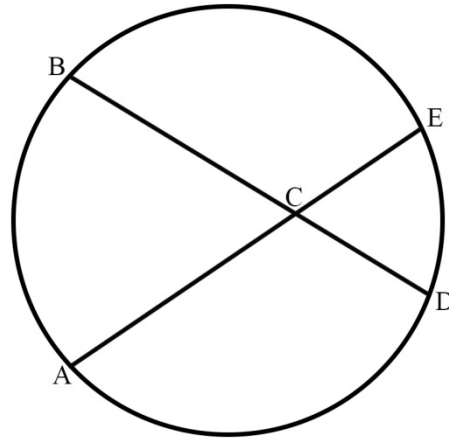
- 2) If, in circle C, angle ACB = 82° , how large is angle ADB?



angle ADB = 41°

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- 3) If the angular measure of minor arc $AB = 83^\circ$ and the angular measure of minor arc $DE = 67^\circ$, find the size of angle ACB .
the size of angle $ACB = 75^\circ$



- 4) Line AB is tangent to circle C at point A , and AD is a diameter of the circle. If $AB = 27$ and $AD = 34$, how long is CB ?

