

Skills Practice

Name _____ Date _____

I. Arc Lengths

A. Calculate the ratio of the length of each arc to the circle's circumference.

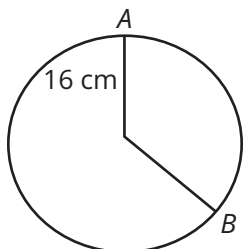
1. The measure of \widehat{AB} is 40° .
2. The measure of \widehat{CD} is 90° .
3. The measure of \widehat{EF} is 120° .
4. The measure of \widehat{GH} is 150° .
5. The measure of \widehat{IJ} is 105° .
6. The measure of \widehat{KL} is 75° .

B. Calculate each arc length. Write your answer in terms of π .

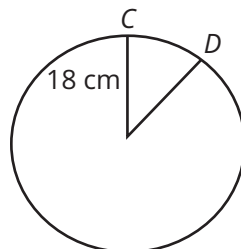
1. If the measure of \widehat{AB} is 45° and the radius is 12 meters, what is the arc length of \widehat{AB} ?
2. If the measure of \widehat{CD} is 120° and the radius is 15 centimeters, what is the arc length of \widehat{CD} ?
3. If the measure of \widehat{EF} is 60° and the radius is 8 inches, what is the arc length of \widehat{EF} ?
4. If the measure of \widehat{GH} is 30° and the radius is 6 meters, what is the arc length of \widehat{GH} ?
5. If the measure of \widehat{IJ} is 80° and the diameter is 10 centimeters, what is the arc length of \widehat{IJ} ?
6. If the measure of \widehat{KL} is 15° and the diameter is 18 feet, what is the arc length of \widehat{KL} ?
7. If the measure of \widehat{MN} is 75° and the diameter is 20 millimeters, what is the arc length of \widehat{MN} ?
8. If the measure of \widehat{OP} is 165° and the diameter is 21 meters, what is the arc length of \widehat{OP} ?

C. Calculate each arc length. Write your answer in terms of π .

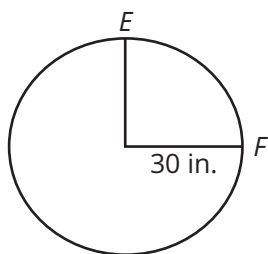
1. If the measure of \widehat{AB} is 135° , what is the arc length of \widehat{AB} ?



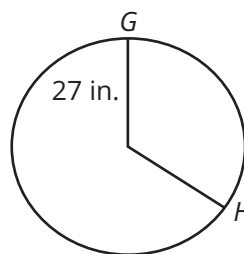
2. If the measure of \widehat{CD} is 45° , what is the arc length of \widehat{CD} ?



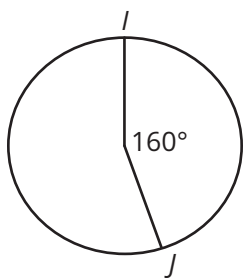
3. If the measure of \widehat{EF} is 90° , what is the arc length of \widehat{EF} ?



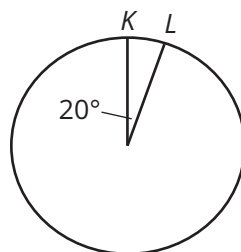
4. If the measure of \widehat{GH} is 120° , what is the arc length of \widehat{GH} ?



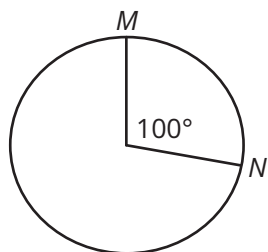
5. If the length of the radius is 4 centimeters, what is the arc length of \widehat{IJ} ?



6. If the length of the radius is 7 centimeters, what is the arc length of \widehat{KL} ?



7. If the length of the radius is 11 centimeters, what is the arc length of \widehat{MN} ?



8. If the length of the radius is 17 centimeters, what is the arc length of \widehat{OP} ?

