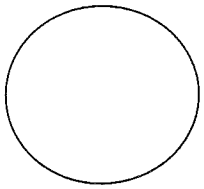
Math 9 The Chord Property Name:

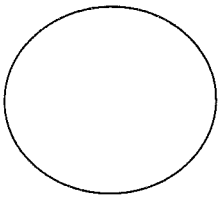
Definitions:
Circle

Radius

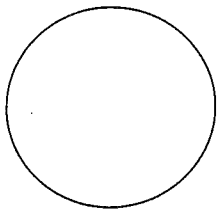


Perpendicular: Midpoint: Bisect:

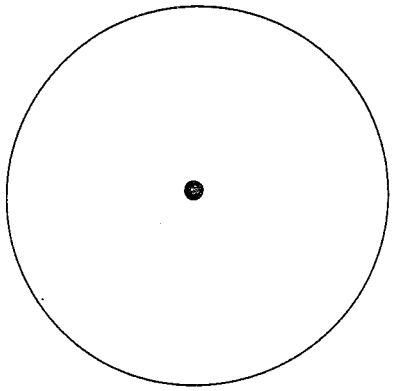
Chord:



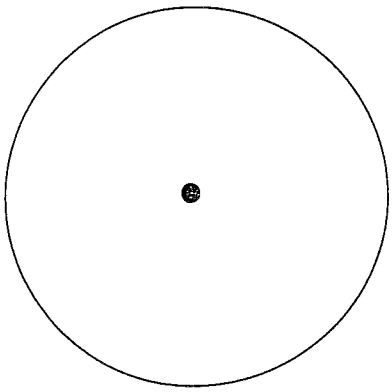
Arc:



Draw a chord AB on this circle. Connect the midpoint M of the chord to the center O. Measure $\angle OMA$ and $\angle OMB$. Record your result

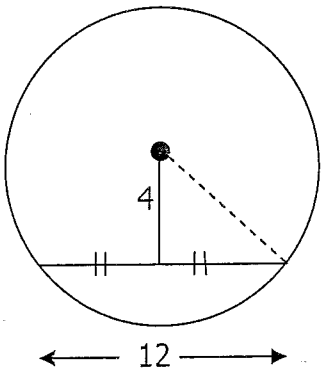


Draw a different length chord CD, in a different location. Draw a segment from the centre to the chord at right angles to the chord. Label the point where they intersect M. Measure CM and DM. What did you find?

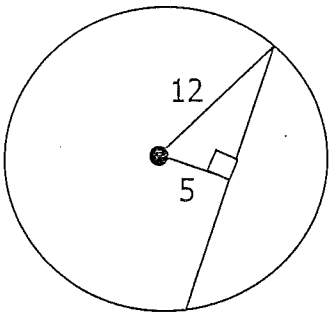


Practice:

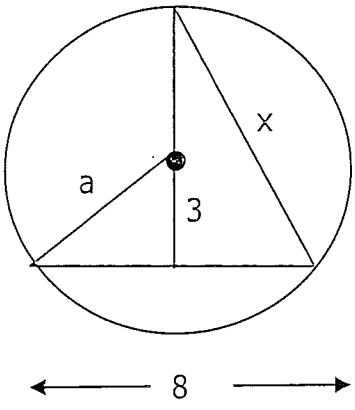
Find the length of the radius.



Find the length of the chord

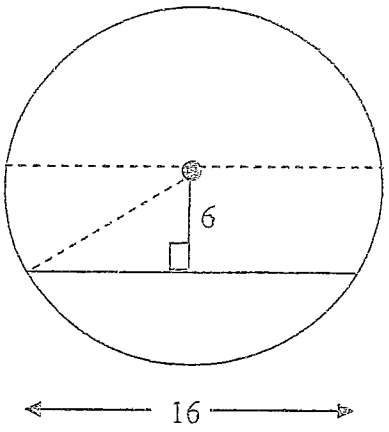


Find the value of x



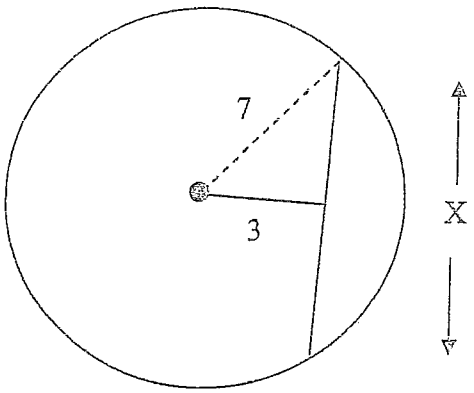
Math 9 Chord Property Review

1)



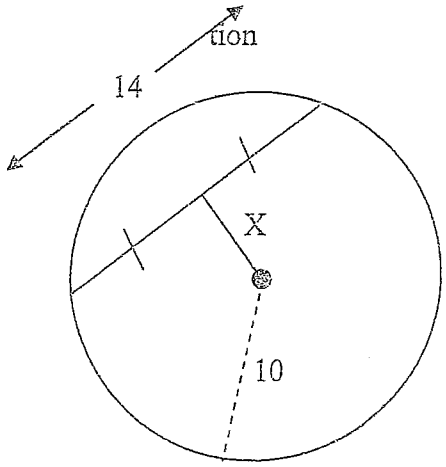
Find the length of the diameter
HINT: Find the radius first

2)



Find the length of the chord
HINT: Find half of the chord first

3)



Find the length of X
HINT: Create a right triangle

4) A cylindrical pipe has a circular cross section. The water at the bottom of the pipe is 20 cm wide. The water is 5 cm from the center of the pipe. What is the diameter of the pipe?

5)A road underpass is shaped as a circle. The underpass has a radius of 5 feet, while the pathway inside is 4 feet wide. What is the maximum height of the underpass?