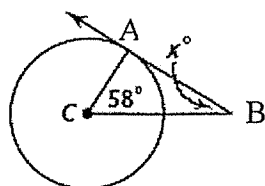


Practice 12-1

Tangent Lines

Assume that lines that appear to be tangent are tangent. C is the center of each circle. Find the value of x .

1.



In $\triangle ABC$ $\angle A =$ _____ because _____

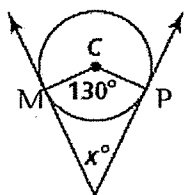
$\angle B =$ _____

$\angle C =$ _____ because _____

Equation _____

Solve

2.



In quadrilateral $MNPC$ $\angle M =$ _____ because _____

$\angle N =$ _____ because _____

$\angle P =$ _____ because _____

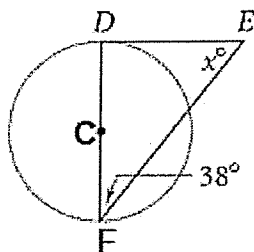
$\angle C =$ _____ because _____

Equation _____

Solve

N

3.



In $\triangle DFE$ $\angle D =$ _____ because _____

$\angle E =$ _____

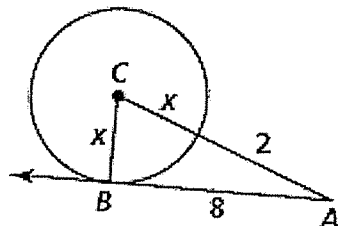
$\angle F =$ _____ because _____

Equation _____

Solve

In each diagram, $\overrightarrow{AB}$ is tangent to $\odot C$ at B . Find the value of x .

4.

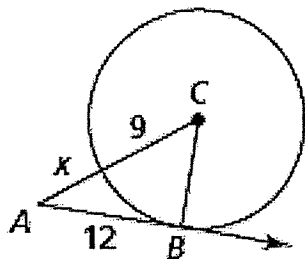


$\triangle ABC$ is a _____, because _____

Equation _____

Solve

5.



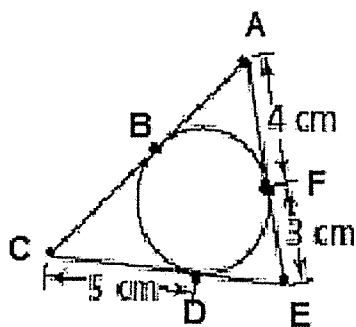
$\triangle ABC$ is a _____, because _____

Equation _____

Solve

In each diagram, a polygon circumscribes a circle. Find the perimeter of each polygon.

6.



$AB =$ _____, because _____

$BC =$ _____, because _____

$CD =$ _____, because _____

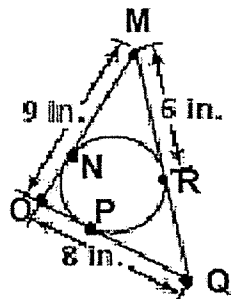
$DE =$ _____, because _____

$EF =$ _____, because _____

$FA =$ _____, because _____

$P_{\triangle ACE} =$ _____

7.



$MN =$ _____, because _____

$NO =$ _____, because _____

$OP =$ _____, because _____

$PQ =$ _____, because _____

$QR =$ _____, because _____

$RM =$ _____, because _____

$P_{\triangle MOQ} =$ _____

8. Determine if a tangent line is shown for each problem. Explain.

