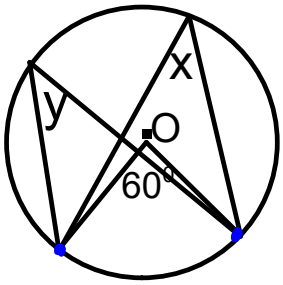
Warm up

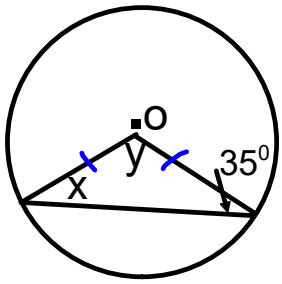
May 15

Find the missing values and provide reasoning.



X=30 CIAP

y=30 IAP



x=35° ITT

y=180-35-35 SATT

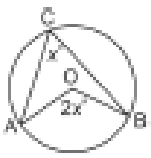
=110°

Homework solutions

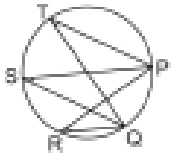
Extra Practice 3 – Master 8.19

Lesson 8.3

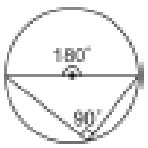
1. a)



b)



c)



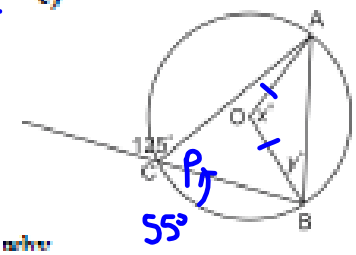
2. a) $x° = 130°$
   b) $x° = 90°$; $y° = 50°$
   c) $x° = 110°$; $y° = 35°$

3. The measure of the central angle subtended by a semicircle is 180°. From the inscribed and central angles property, the inscribed angle subtended by the same arc is one-half the measure of the central angle. So, the inscribed angle subtended by a semicircle is one-half of 180° = 90°.

4. The student's error is in treating minor arc AB and major arc AB as the same arc. $y° = 85°$; $x° = 95°$

5. $x° = 60°$; $w° = z° = y° = 30°$

2. c)



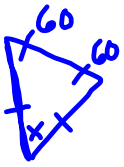
125 P $P = 180 - 125 = 55°$ SAT

$x = 2(55)$ CIAP

$= 110$

$y = \frac{180-110}{2}$ ITT SATT

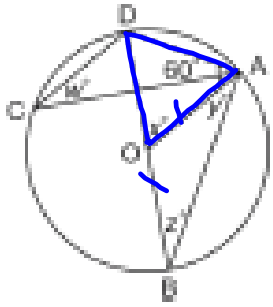
$= 35°$



$x = 180 - 60 - 60$

$= 60°$

5.



$z = 30°$ CIAP

$w = 30°$ CIAP (IAP)

$y = 30$ ITT

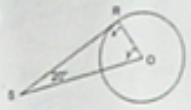
Concept Reinforcement

Chapter Review Worksheets

Unit 8 Review

1. Find each value of $x°$ and $y°$. Segments RS and MN are tangents.

a)



$x° =$ ____

$y° = 180° -$ ____ $-$ ____

$=$ ____

b)

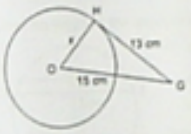
$\angle ONM =$ ____

$x° = 180° -$ ____ $-$ ____

$=$ ____

2. Find each value of x to the nearest tenth. Segments GH and ST are tangents.

a)



$\angle OHG =$ ____

____ $= x^2 +$ ____

____

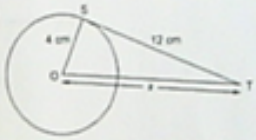
____

____

____

So, $x =$ ____ cm

b)



$\angle OST =$ ____

____

____

____

____

So, $x =$ ____ cm

3. Find the values of $x°$ and $y°$.

$x° =$ ____

$y° =$ ____ $-$ ____ $-$ ____

____

$y° =$ ____

By the chord properties

By the angle sum property

4. Find the values of $x°$, $y°$, and $z°$.

$x° =$ ____

OM = ON, so $\triangle$____ is isosceles

$\angle ONP = \angle OMP$

So, $y° =$ ____

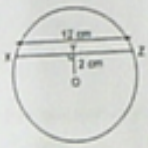
$z° =$ ____ $-$ ____ $-$ ____

$z° =$ ____

By the ____

____

5. Find the length of the radius of the circle to the nearest tenth.



$XY = \frac{1}{2} \times$ ____

$= \frac{1}{2} \times$ ____ cm

$=$ ____ cm

Draw radius OX.

$OX^2 =$ ____ $+ XY^2$

$OX^2 =$ ____ $+$ ____

____

____

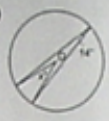
____

$OX =$ ____

The radius is about ____ cm.

6. Find each value of x°.

a)



$x^\circ = 2 \times$ ____

$x^\circ =$ ____

b)

$x^\circ =$ ____

c)

$x^\circ =$ ____

7. Find each value of x° and y°.

a)

$x^\circ =$ ____

$y^\circ =$ ____

b)

$x^\circ = 2 \times$ ____

$=$ ____

$y^\circ =$ ____

8. Find the value of w°, x°, y°, and z°.

$x^\circ = y^\circ =$ ____

$z^\circ =$ ____ $-$ ____ $-$ ____ By the angle sum property

_____

$z^\circ =$ ____

$\triangle ACD$ is _____. So, $\angle CDA = \angle CAD = w^\circ$

$w^\circ + w^\circ =$ ____ $-$ ____ By the angle sum in $\triangle ACD$

$2w^\circ =$ ____

$\frac{w^\circ}{2} = \frac{\quad}{2}$

$w^\circ =$ ____