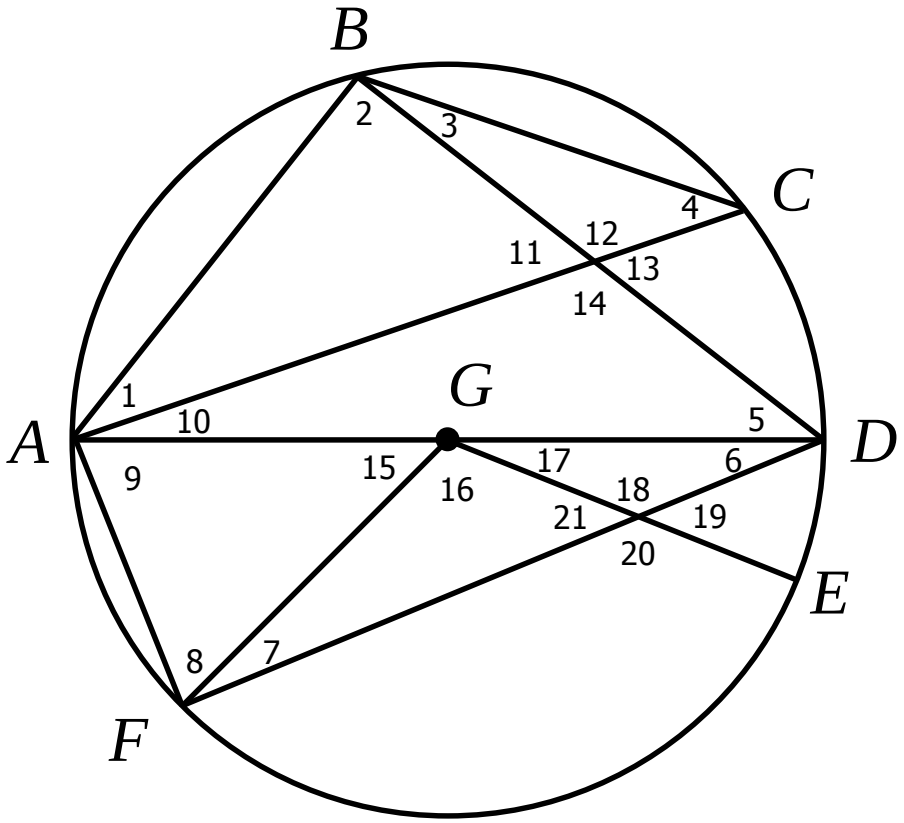
The Giant Circle CHALLENGE!

Name: _____



Given: $\overline{AD}$ is the center of the circle
$\overline{AD}$ is a diameter, $m\overset{\frown}{AB} = 78^\circ$,
$m\overset{\frown}{FE} = 105^\circ$, $m\overset{\frown}{ED} = 27^\circ$, $m\overset{\frown}{CD} = 42^\circ$

Find each angle measure!

$m\angle 1 =$ _____
$m\angle 2 =$ _____
$m\angle 3 =$ _____
$m\angle 4 =$ _____
$m\angle 5 =$ _____
$m\angle 6 =$ _____
$m\angle 7 =$ _____
$m\angle 8 =$ _____
$m\angle 9 =$ _____
$m\angle 10 =$ _____
$m\angle 11 =$ _____
$m\angle 12 =$ _____
$m\angle 13 =$ _____
$m\angle 14 =$ _____
$m\angle 15 =$ _____
$m\angle 16 =$ _____
$m\angle 17 =$ _____
$m\angle 18 =$ _____
$m\angle 19 =$ _____
$m\angle 20 =$ _____
$m\angle 21 =$ _____

Name: _____ **Geometry**

Date: _____ **Per:** _____ **Unit 10:** Circles

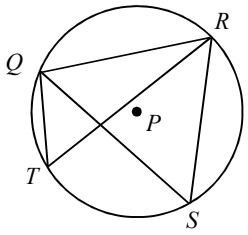
Quiz 10-2: Inscribed Angles, Tangents, Angle & Arc Measures

1. In circle P, if $\overset{\frown}{mQR} = 110^\circ$, $\overset{\frown}{mRS} = 94^\circ$, and $m\angle QRT = 27^\circ$, find each measure.

a) $m\angle QTR$ = _____ **d)** $m\angle TRS$ = _____

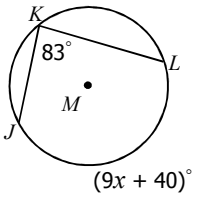
b) $m\angle RQS$ = _____ **e)** $m\angle QSR$ = _____

c) $\overset{\frown}{mTS}$ = _____ **f)** $\overset{\frown}{mQT}$ = _____

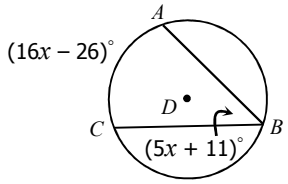


For questions 2-5, find each value or measure.

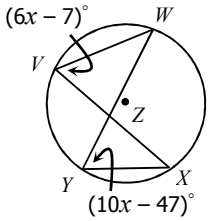
2. x = _____



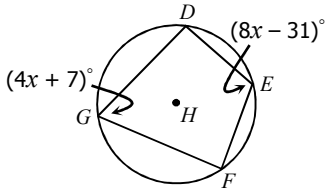
3. $m\angle ABC$ = _____



4. $\overset{\frown}{mWX}$ = _____

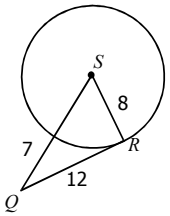


5. $m\angle DGF$ = _____

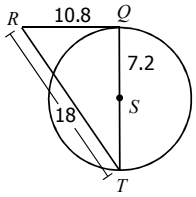


6. In which of the following diagrams is $\overline{QR}$ tangent to circle S? Circle the best answer.

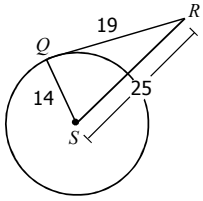
A.



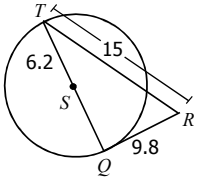
B.



C.



D.



Name: _____ **Geometry**

Date: _____ **Per:** _____ **Unit 10:** Circles

Quiz 10-2: Inscribed Angles, Tangents, Angle & Arc Measures

1. In circle P, if $\overset{\frown}{mQR} = 110^\circ$, $\overset{\frown}{mRS} = 94^\circ$, and $m\angle QRT = 27^\circ$, find each measure.

a) $m\angle QTR =$ 55°

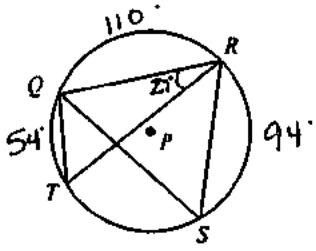
b) $m\angle RQS =$ 47°

c) $\overset{\frown}{mTS} =$ 102°

d) $m\angle TRS =$ 51°

e) $m\angle QSR =$ 55°

f) $\overset{\frown}{mQT} =$ 54°



For questions 2-5, find each value or measure.

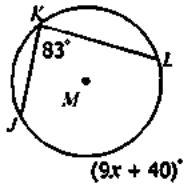
2. $x =$ 14

$2(83) = 9x + 40$

$166 = 9x + 40$

$126 = 9x$

$14 = x$



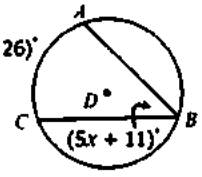
3. $m\angle ABC =$ 51°

$2(5x + 11) = 16x - 26$

$10x + 22 = 16x - 26$

$48 = 6x$

$x = 8$



$5(8) + 11$

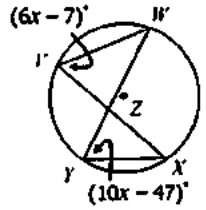
$= 51$

4. $m\overset{\frown}{WX} =$ 106°

$6x - 7 = 10x - 47$

$40 = 4x$

$10 = x$



$10(10) - 47$

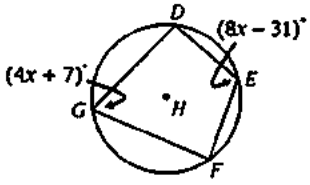
$= 53^\circ$

5. $m\angle DGF =$ 75°

$12x - 24 = 180$

$12x = 204$

$x = 17$

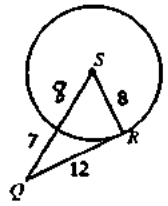


$4(17) + 7$

$= 75$

6. In which of the following diagrams is $\overline{QR}$ tangent to circle S? Circle the best answer.

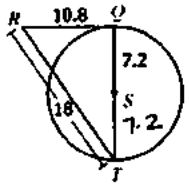
A.



$8^2 + 12^2 = 15^2$

$208 \neq 225$

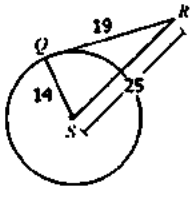
B.



$14.4^2 + 10.8^2 = 18^2$

$324 = 324$

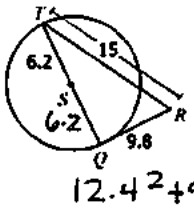
C.



$14^2 + 19^2 = 25^2$

$557 \neq 625$

D.



$12.4^2 + 9.8^2 = 15^2$

$249.8 \neq 225$