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Unit 10- Worksheet \#2: Find Arc Measures.
In $\odot F$, determine whether the given arc is a minor arc, major arc or semicircle.

1. $\overparen{A B}$
2. $\overparen{A E}$
3. $\overparen{E A C}$
4. $A \overparen{C D}$
5. $\overparen{C A D}$
6. $\overparen{D E B}$
7. $\overparen{B A E}$
8. $\overparen{D E C}$


In the figure, $\overline{\boldsymbol{P R}}$ and $\overline{\mathbf{Q S}}$ are diameters of $\odot \boldsymbol{U}$. Find the measure of the indicated arc.

9. $m \overparen{P Q}$
10. $m \widehat{S T}$
11. $m \overparen{T P S}$
12. $m \overparen{R T}$
13. $m \overparen{R Q S}$
14. $m \overparen{Q R}$
15. $m \overparen{P Q S}$
16. $m T Q R$
17. $m \overparen{P S}$
18. $m \overparen{P T R}$
$\widehat{\mathrm{PQ}}$ has a measure of $90^{\circ}$ in $\odot R$. Find the length of $\overline{P Q}$.

20.


Find the indicated arc measure.
21. $m \overparen{A C}$
22. $m \overparen{A C B}$
23. $m \overparen{D A B}$

24. Two diameters of $\odot T$ are $\overline{P Q}$ and $\overline{R S}$. Find the given arc measure in $m \overparen{P R}=35^{\circ}$
**It helps to draw the circle**
a.) $m \overparen{P S}$
b.) $m \overparen{P S R}$
c.) $m \overparen{P R Q}$
d.) $m P R S$

Tell whether the given arc are congruent. Show work to support your answer.
25. $\overparen{J K}$ and $\overparen{Q R}$

26. $\widehat{A B}$ and $\overparen{C D}$

28. STV and $U$ VT

29. A water sprinkler covers the area shown in the figure. It moves through the covered area at a rate of about $5^{\circ}$ per second. Show work to support your answer.
a.) What is the measure of the arc coverd by the sprinkler?
b.) If the sprinkler starts at the far left position, how long will it take for the sprinkler to reach the far right position?

30. A surveillance camera is mounted in a corner of a building. It rotates clockwise and counterclockwise continuously between Wall A and Wall B at a rate of $10^{\circ}$ per minute. Show work to support your answer.
a.) What is the measure of the arc surveyed by the camera?
b.) How long does it take the camera to survey the entire area once?
c.) If the camera is at an angle of 85 from Wall B while rotating Counterclockwise, how long will it take for the camera to return
 to that same position?

