

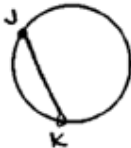
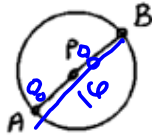
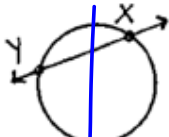
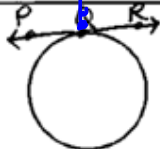
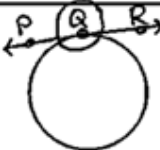
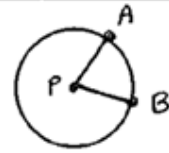


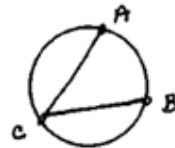
PARTS OF CIRCLES DICTIONARY

Term	Definition	Example or Visual
CIRCLE	The set of points equidistant from a given point (the center). Circle P	
RADIUS	A segment with endpoints at the center and on the circle.	
CHORD	A segment with endpoints on the circle.	
DIAMETER	A chord that passes through the center. <u>(Diameter = 2 · radius)</u>	
SECANT	A line that intersects the circle in exactly <u>two</u> places.	
TANGENT	A line that intersects the circle at exactly <u>one</u> place.	
POINT OF TANGENCY	The point at which the tangent line intersects the circle.	

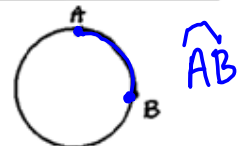
CENTRAL ANGLE An angle with a vertex at the center, and two sides that are radii.



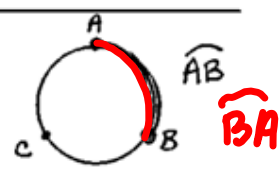
INSCRIBED ANGLE An angle with a vertex on the circle, and two sides that are chords.



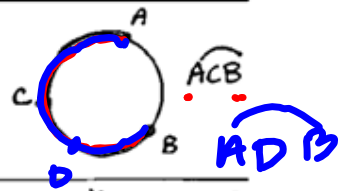
ARC A portion of the edge of the circle defined by two endpoints. Symbol: \frown



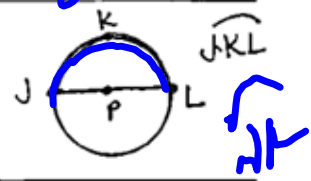
MINOR ARC An arc with a measure less than 180° .
* Use 2 letters to name it!



MAJOR ARC An arc with a measure greater than 180° .
* Use 3 letters to name it!



SEMICIRCLE An arc with endpoints on the diameter.
* Always equals 180° !
Use 3 letters to name it



Formulas

AREA	CIRCUMFERENCE	ARC LENGTH
$A = \pi r^2$ (r = radius)	$C = 2\pi r$ (r = radius) $C = \pi d$ (d = diameter)	$L = \frac{x}{360} \cdot 2\pi r$ (x = degrees of arc)

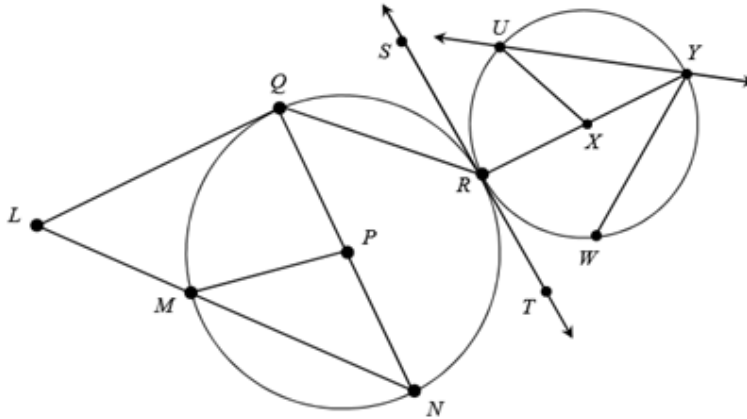
$d = 2r$

$arc\ length = \frac{m\ arc}{360} \cdot 2\pi r$

Gina Wilson (All Things Algebra), 2015

Name that Circle Part!

Directions: Use the diagram below along with the bank to classify each circle part. Parts may be used more than once.



Parts of Circles

- Center
- Radius
- Chord
- Diameter
- Secant
- Tangent
- Point of Tangency
- Minor Arc
- Major Arc
- Semicircle
- Central Angle
- Inscribed Angle


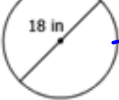

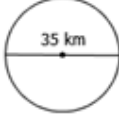




- | | |
|---|--|
| <p>1. \overline{LQ} _____</p> <p>8. $\angle NQR$ _____</p> <p>5. \widehat{RWU} _____</p> <p>7. \overline{PN} _____</p> <p>9. \widehat{MQ} _____</p> <p>11. R _____</p> <p>13. \widehat{QRN} _____</p> <p>15. \overline{QR} _____</p> <p>17. \widehat{WY} _____</p> <p>19. \overline{UX} _____</p> | <p>2. \overline{WY} _____</p> <p>4. X _____</p> <p>6. \overline{ST} _____</p> <p>8. $\angle UXY$ _____</p> <p>10. \overline{QN} _____</p> <p>12. \overline{UY} _____</p> <p>14. $\angle MPQ$ _____</p> <p>16. $\angle UYR$ _____</p> <p>18. \overline{LN} _____</p> <p>20. \widehat{RUY} _____</p> |
|---|--|

7.1

Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes	
Area & Circumference FORMULAS	AREA FORMULA	CIRCUMFERENCE FORMULA
	$A = \pi r^2$	$C = \pi d$ $C = 2\pi r$

Directions: Find the area for circles 1-4 and circumference for circles 5-8.

<p>1.</p>  <div style="margin-left: 100px;"> $A = \pi r^2$ $A = \pi (12)^2$ $A = 144\pi \text{ m}^2$ $A = 452.39 \text{ m}^2$ </div>	<p>2. $d = 18$ $r = 9$</p>  <div style="margin-left: 100px;"> $A = \pi r^2$ $A = \pi (9)^2$ $A = 81\pi \text{ in}^2$ $A = 254.47 \text{ in}^2$ </div>
<p>3.</p> 	<p>4.</p> 
<p>5.</p>  <div style="margin-left: 100px;"> $C = 2\pi r$ $C = 2\pi (7)$ $C = 14\pi \text{ mm}$ $C = 43.98 \text{ mm}$ </div>	<p>6.</p> 
<p>7.</p>  <div style="margin-left: 100px;"> $C = \pi d$ $C = \pi 58$ $C = 58\pi \text{ yd}$ $C = 182.21 \text{ yd}$ </div>	<p>8.</p> 

Directions: Use the area and circumference formulas to find the radius or diameter.

<p>9. Find the diameter of a circle with a circumference of 65.97 meters.</p> <div style="margin-left: 50px;"> $C = \pi d$ $65.97 = \pi d$ $\frac{65.97}{\pi} = d$ $21 \text{ m} = d$ </div>	<p>10. Find the radius of a circle with a circumference of 21.99 feet.</p> <div style="margin-left: 50px;"> $C = 2\pi r$ $21.99 = 2\pi r$ $\frac{21.99}{2\pi} = r$ $3.5 \text{ ft} = r$ </div>
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<p>11. Find the <u>radius</u> of a circle with a <u>circumference</u> of 35π yards.</p> $C = 2\pi r$ $\frac{35\pi}{2\pi} = \frac{2\pi r}{2\pi}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;"> $17.5 \text{ yd} = r$ </div>	<p>12. Find the <u>radius</u> of a circle with an <u>area</u> of 380.13 square inches.</p> $A = \pi r^2$ $\frac{380.13}{\pi} = \frac{\pi r^2}{\pi}$ $\sqrt{121} = \sqrt{r^2}$ <div style="border: 1px solid black; padding: 2px; display: inline-block;"> $r = 11 \text{ in}$ </div>
<p>13. Find the <u>diameter</u> of a circle with an <u>area</u> of 615.75 square centimeters.</p> $A = \pi r^2$ $\frac{615.75}{\pi} = \frac{\pi r^2}{\pi}$ $\sqrt{196} = \sqrt{r^2}$ <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="margin-right: 20px;">$r = 14$</div> <div style="border: 1px solid black; padding: 2px;"> $d = 28 \text{ cm}$ </div> </div>	<p>14. Find the <u>diameter</u> of a circle with an <u>area</u> of 90.25π square meters.</p> $A = \pi r^2$ $\frac{90.25\pi}{\pi} = \frac{\pi r^2}{\pi}$ $\sqrt{90.25} = \sqrt{r^2}$ <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="margin-right: 20px;">$r = 9.5$</div> <div style="margin-right: 20px;">$\times 2$</div> <div style="border: 1px solid black; padding: 2px;"> $d = 19 \text{ m}$ </div> </div>
<p>DIRECTIONS: Use the information given to find the area or circumference.</p>	
<p>15. Find the <u>area</u> of a circle with a <u>circumference</u> of 26π feet.</p>	<p>16. Find the <u>circumference</u> of a circle with an <u>area</u> of 289π square millimeters.</p>
<p>17. Find the <u>circumference</u> of a circle with an <u>area</u> of 201.06 square inches.</p>	<p>18. Find the <u>area</u> of a circle with a <u>circumference</u> of 131.95 meters.</p>
<p>19. Find the <u>area</u> of a circle with a <u>circumference</u> of 18.84 yards.</p>	<p>20. Find the <u>circumference</u> of a circle with an <u>area</u> of $1,809.56$ square centimeters.</p>

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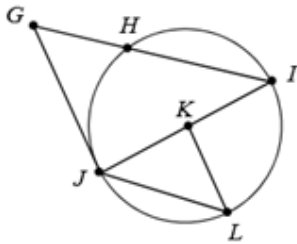
Name: _____ Unit 10: Circles

Date: _____ Bell: _____ Homework 1: Parts of a Circle,
Area & Circumference



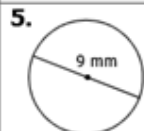
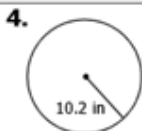
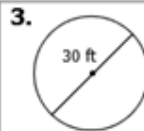
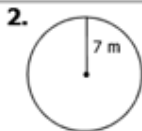
**** This is a 2-page document! ****

1. Give an example of each circle part using the diagram below.



- a) Center: _____
- b) Radius: _____
- c) Chord: _____
- d) Diameter: _____
- e) Secant: _____
- f) Tangent: _____
- g) Point of Tangency: _____
- h) Minor Arc: _____
- i) Major Arc: _____
- j) Semicircle: _____
- k) Central Angle: _____
- l) Inscribed Angle: _____

Directions: Find the area and circumference of each circle below.



Directions: Use the area and circumference formulas to find the radius or diameter.

6. Find the radius of a circle with an area of 615.75 square kilometers.

7. Find the diameter of a circle with a circumference of 15.71 yards.

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8. Find the diameter of a circle with an area of 415.48 square inches.	9. Find the radius of a circle with a circumference of 125.66 feet.
10. Find the diameter of a circle with an area of 240.25π square millimeters.	11. Find the radius of a circle with a circumference of 45π centimeters.

Directions: Use the information given to find the area or circumference.	
12. Find the area of a circle with a circumference of 11π feet.	13. Find the circumference of a circle with an area of 676π square millimeters.
14. Find the circumference of a circle with an area of 1,134.11 square meters.	15. Find the area of a circle with a circumference of 53.41 inches.