

You will attach Ch. 10 Calendar to this page!

MP. Precision: Mathematically proficient students use units of measurement to show precise measurements.

- The table below shows explanations and examples of precise measurements. Use this while doing your homework and check back to make sure your units of measurement relate to the requested measurement.

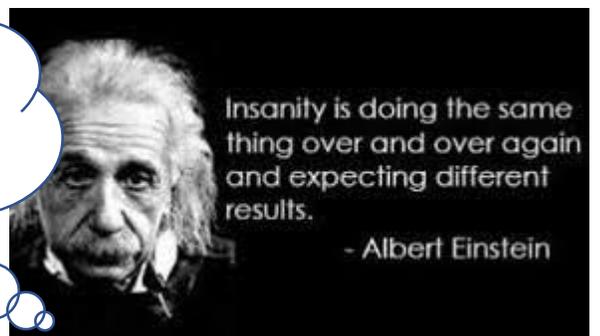
	Given information	Requested measure	Example answers
Lengths	<ul style="list-style-type: none"> $r = 7 \text{ in}$ $d = 12 \text{ mm}$ $C = 16\pi \text{ ft}$ $\text{Arc length} = 9\pi \text{ cm}$ $A = 12 \text{ mm}^2$ 	Find the: <ul style="list-style-type: none"> Radius (r) Diameter (d) Circumference (C) Arc length (l) 	<ul style="list-style-type: none"> $r = 4 \text{ cm}$ $d = 5 \text{ m}$ $C = 14.6 \text{ ft}$ $C = 64\pi \text{ in}$ $l = 23 \text{ mm}$
Area of a Circle - Area of a Sector	<ul style="list-style-type: none"> $r = 5 \text{ in}$ $d = 15 \text{ cm}$ $\text{Arc length} = 47\pi \text{ m}$ $\text{Arc length} = 2.7 \text{ in}$ 	Find the area of: <ul style="list-style-type: none"> a circle (A) a sector (A) 	<ul style="list-style-type: none"> $A = 74\pi \text{ cm}^2$ $A = 40.8 \text{ ft}^2$
Degree measure	<ul style="list-style-type: none"> $r = 5 \text{ in}$ $d = 15 \text{ cm}$ $A = 12 \text{ mm}^2$ $\angle ABC = 117^\circ$ 	Find the: <ul style="list-style-type: none"> Central angle Arc measure 	<ul style="list-style-type: none"> $x^\circ = 85^\circ$ $\widehat{ED} = 246^\circ$

- The table below shows examples of decimal places and how to round them.

Nearest angle -or- whole number		One decimal place 0.0		Two decimal places 0.00		Nearest tenth 0.0		Nearest hundredth 0.00	
Calc Ans	Rounded	Calc Ans	Rounded	Calc Ans	Rounded	Calc Ans	Rounded	Calc Ans	Rounded
34. <u>7</u>	35°	4.2 <u>5</u>	4.3	4.28 <u>5</u>	4.29	4.2 <u>5</u>	4.3	4.28 <u>5</u>	4.29
15. <u>29</u>	15°	37.0 <u>3</u>	37.0	37.03 <u>3</u>	37.03	37.0 <u>3</u>	37.0	37.03 <u>3</u>	37.03
		12.9 <u>6</u>	13.0	*12.99 <u>6</u>	13.0*	*12.9 <u>6</u>	13.0*	*12.99 <u>6</u>	13.0*



Unless you're rounding to **one decimal place** or the **nearest tenth**.
Also, unless you're rounding to **two decimal places** or the **nearest hundredth**.

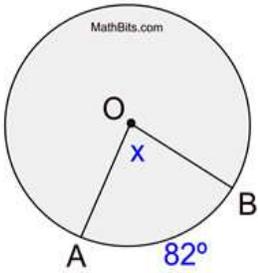


10.1 Worksheet: **Show your work!**

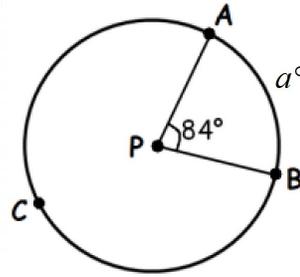
Name _____

For #1 – 6, find the value of each variable.

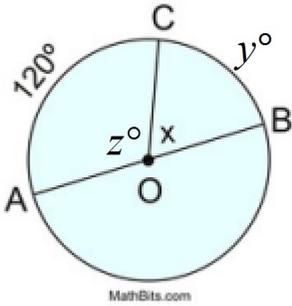
1)



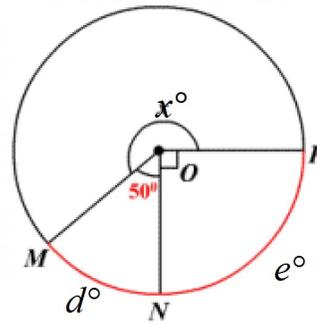
2)



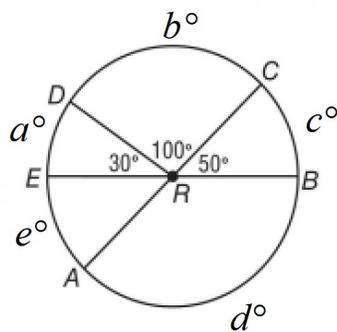
3)



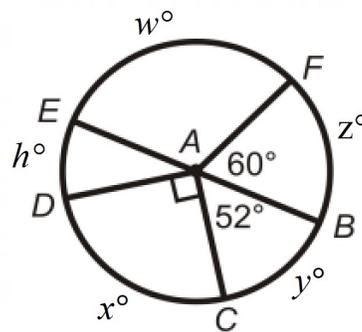
4)



5)

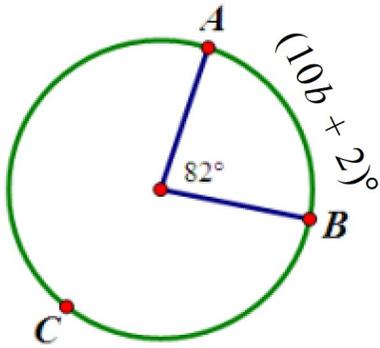


6)

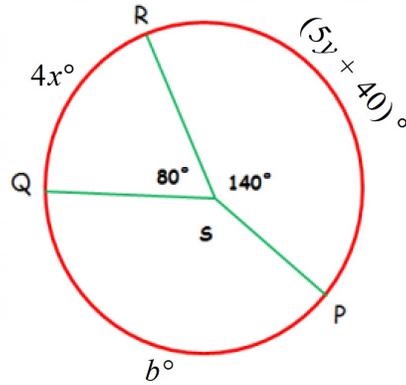


For #7 – 9, find the value of each variable.

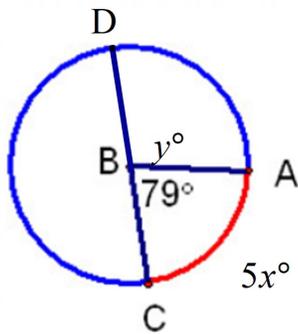
7)



8)



9)



For #10-12, From questions #7-9, identify if the arc is a major or minor arc.

10) From #7; arc AB.

11) From #8; \widehat{QRP}

12) From #9; \widehat{DAC}

For #13 – 18, use the diagram shown to find the measure of each requested arc or angle.

13) $\angle EAF$

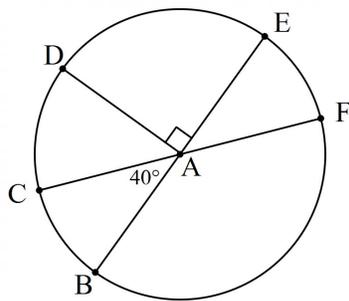
14) \widehat{BF}

15) \widehat{EF}

16) $\angle DAF$

17) \widehat{DBF}

18) \widehat{EBD}



For #19 – 24, use the diagram shown to find the measure of each requested arc or angle.

19) $\angle BEC$

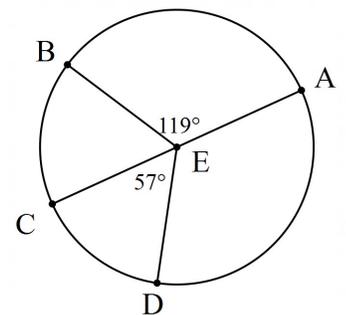
20) $\angle AED$

21) \widehat{DA}

22) \widehat{BC}

23) \widehat{ADB}

24) \widehat{CAB}



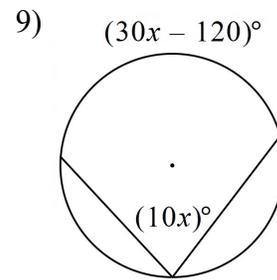
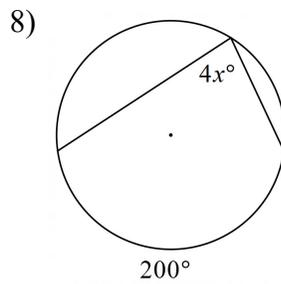
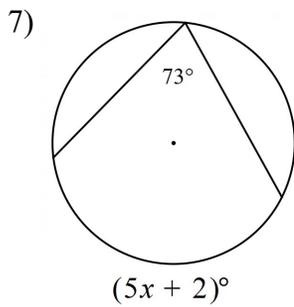
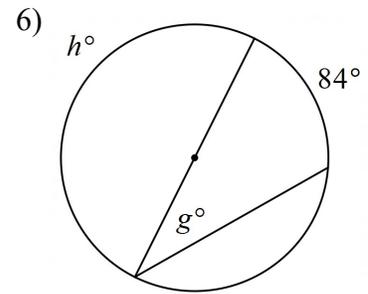
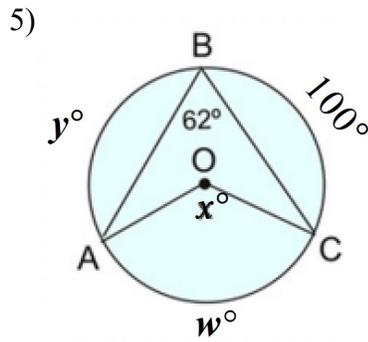
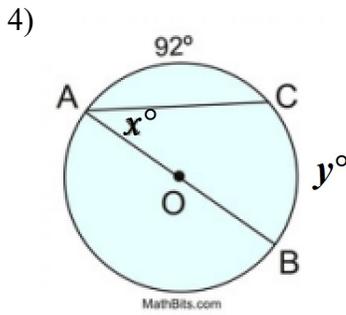
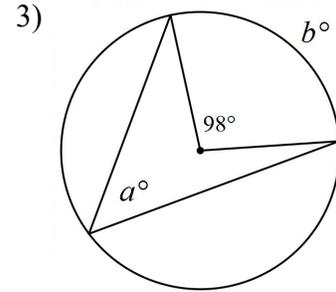
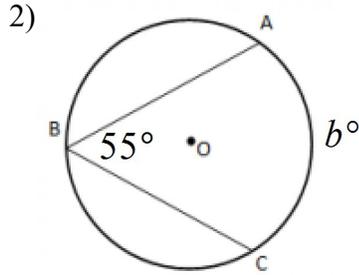
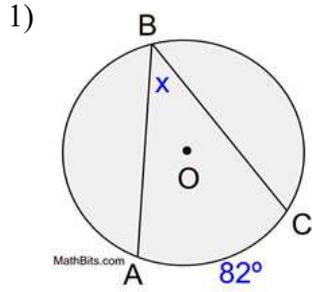
25) What is the measure of any semicircle?

26) How many total degrees are there in a circle?

10.2 Worksheet: **Show your work!**

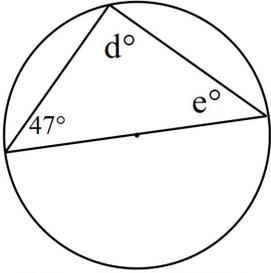
Name _____

For #1 – 9, find the value of each variable.

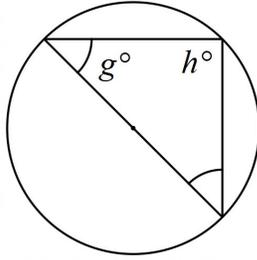


For #10-18, find the value of each variable.

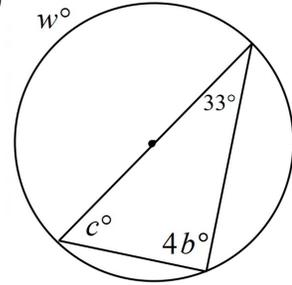
10)



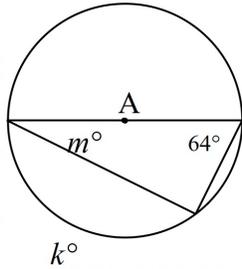
11)



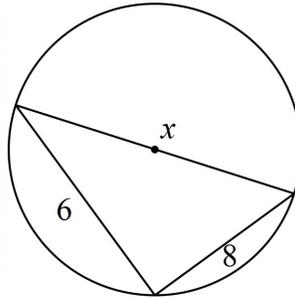
12)



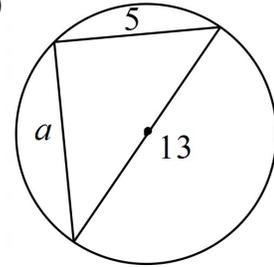
13)



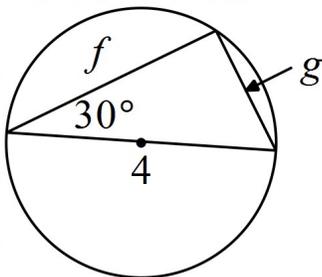
14)



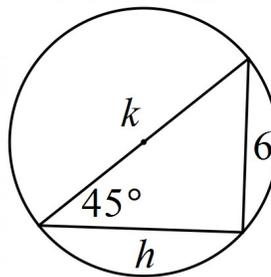
15)



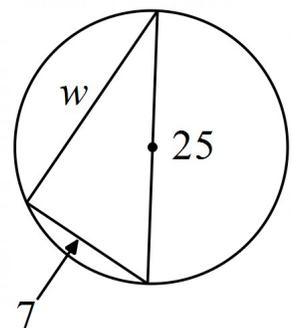
16) Answer in radical form.



17) Answer in radical form, if necessary.



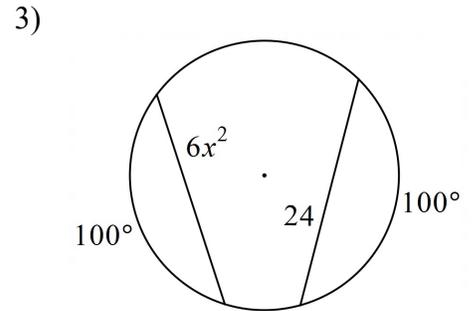
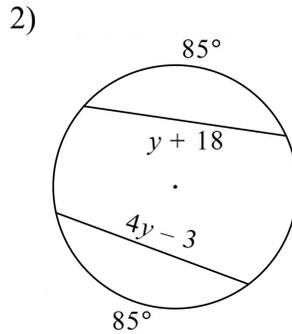
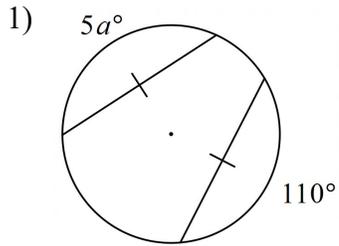
18)



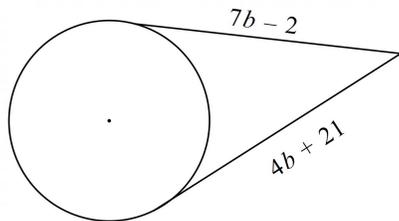
10.3 Worksheet: **Show your work!**

Name _____

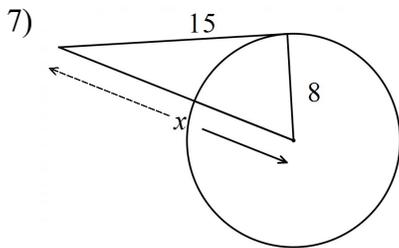
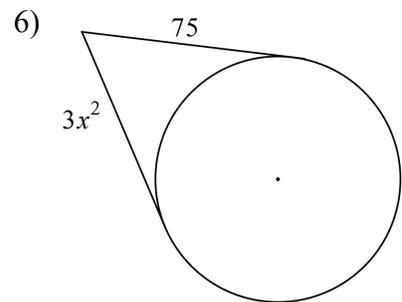
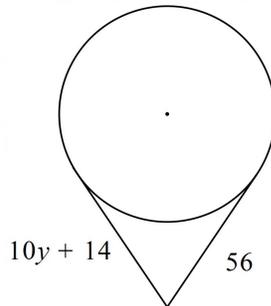
For #1 – 9, find each variable. Assume that segments that appear tangent are indeed tangent.



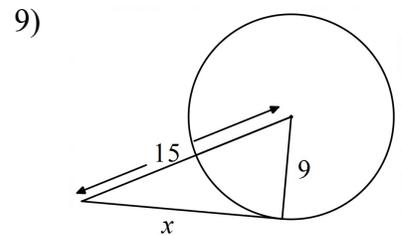
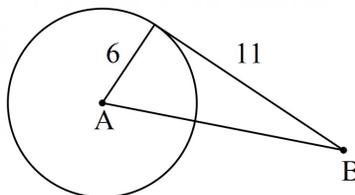
4) Round to nearest tenth.



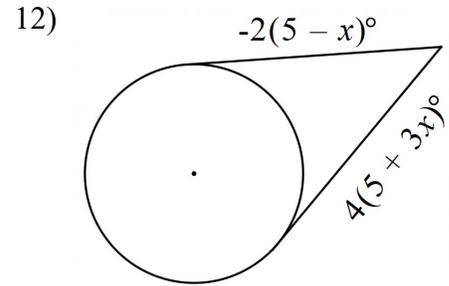
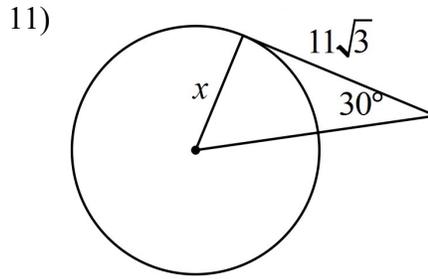
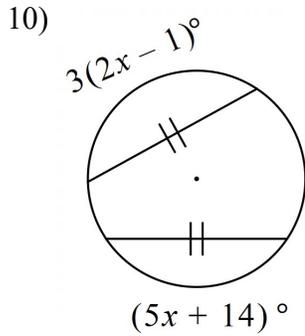
5) Round to nearest tenth.



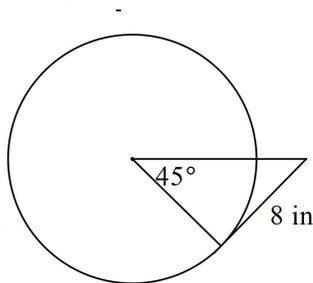
8) Find AB (to the nearest tenth.)



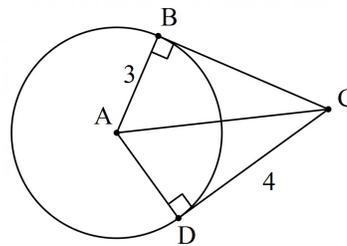
For #10 - 12, find each variable. Assume that segments that appear tangent are indeed tangent.



13) Find the area of the circle shown.
 Answer in terms of pi.
 Hint: $A = \pi r^2$



14) Find the perimeter of ABCD.



For #15 - 16, given that $\Delta PQR \sim \Delta BDC$. Complete each statement so that it is true.

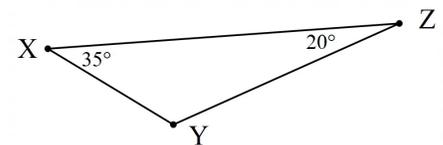
15) $\frac{PR}{BC} = \frac{?}{DC}$

16) $\angle C \cong ?$

For #17 - 18, use the diagram shown of ΔXYZ . Hint: you will need to use the triangle sum theorem.

17) What is the longest side?

18) What is the shortest side?



19) Two of the sides of a triangle are 3 and 9. Which options below could be the length of the 3rd side? Select all that apply. Hint: $a + b > x > a - b$

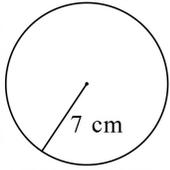
- A) 17 B) 12 C) 8 D) 7 E) 6 F) 3

10.4 Worksheet: **Show your work!**

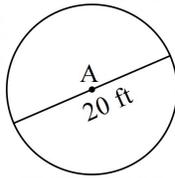
Name _____

For #1 – 3, find the area of each circle, in terms of pi (unless otherwise indicated).

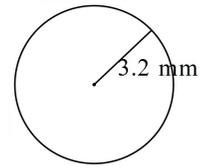
1)



2)



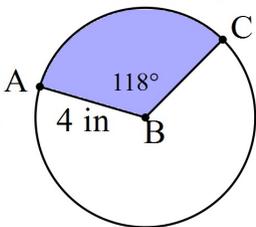
3) Round to one decimal place.



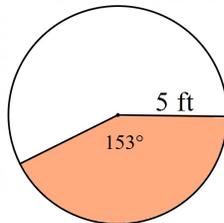
4) The area of a circle is $100\pi \text{ in}^2$. Find the radius and diameter of the circle.

For #5 – 7, find the area of each shaded sector. Round to one decimal place.

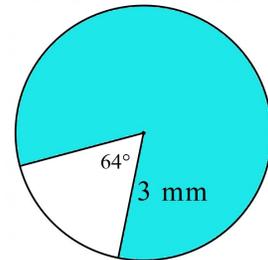
5)



6)

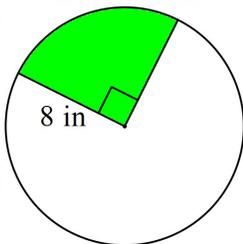


7)

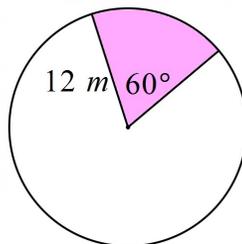


For #8 – 9, find the *exact* area of each shaded sector, *in terms of pi*. No decimal answers.

8)



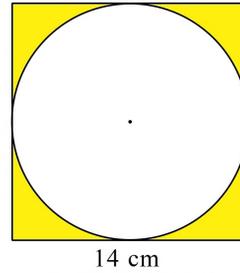
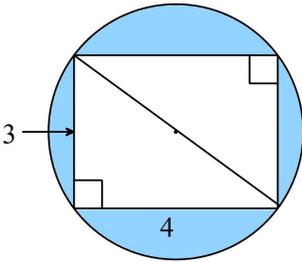
9)



For #10 – 11, find the *exact* area of each shaded region, *in terms of pi*. No decimal answers.

10) Note: The quadrilateral is a rectangle.

11) Note: The quadrilateral is a square.



For #12 – 17, find the requested arc or angle measure from the given diagram of circle A.

12) $\angle BAC$

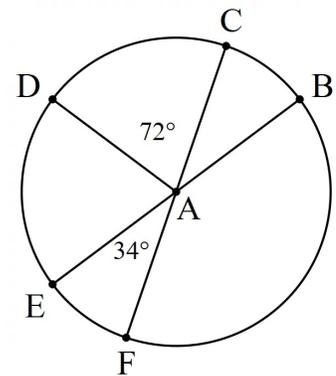
13) $\angle DAE$

14) \widehat{DE}

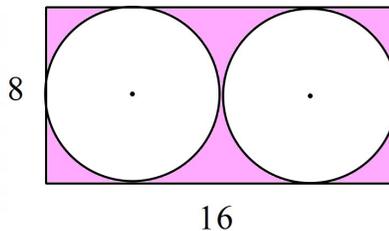
15) \widehat{BF}

16) \widehat{BDE}

17) \widehat{DBF}



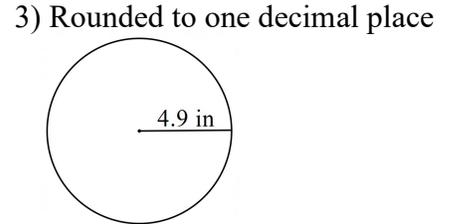
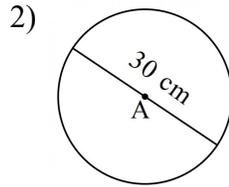
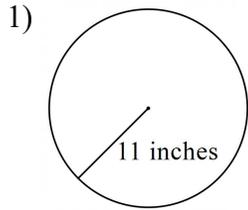
Bonus! Find the *exact* area of the shaded region, *in terms of pi*. No decimal answers. Note: the two circles are congruent.



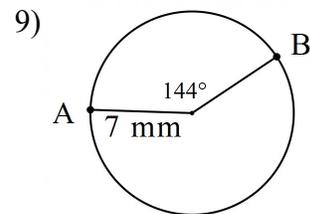
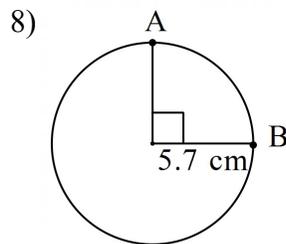
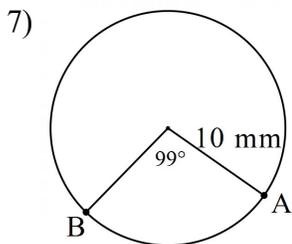
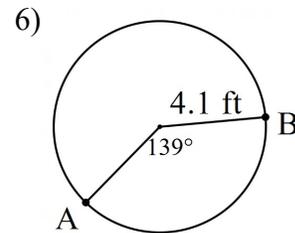
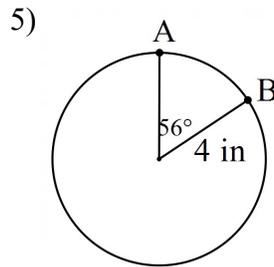
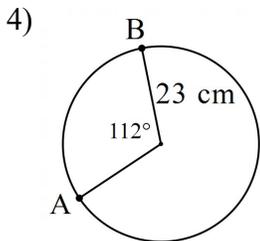
10.5 Worksheet: **Show your work!**

Name _____

For #1 – 3, find the circumference of each circle. Write your answers in terms of pi (unless otherwise indicated).



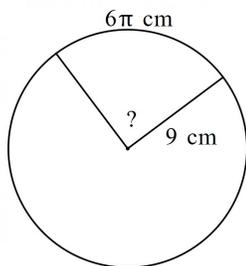
For #4 – 9, find the LENGTH of \widehat{AB} , rounded to one decimal place.



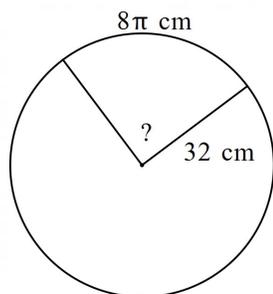
10) An arc has a measure of 120 degrees, and a *diameter* of 18 inches. Find the length of the arc *as an exact answer in terms of pi*.

11) An arc has a measure of 60 degrees, and a *diameter* of 30 cm. Find the length of the arc *as an exact answer in terms of pi*.

12) An arc has a length of 6π cm and a radius of 9 cm. Find the measure of the arc.



13) An arc has a length of 8π in and a radius of 32 cm. Find the measure of the arc.



14) The length of a **semicircle** (arc with measure of 180 degrees) is 7π cm. Find the circumference (in terms of π .)

15) The circumference of a circle is 16π inches. Find the area of the circle (in terms of π .)

Chapter 10 Review Worksheet (HOMEWORK): Name _____

This Review has 3 pages, don't forget to do the last page!

For #1 – 6, find the measure of each requested angle or arc.

1) \widehat{BC}

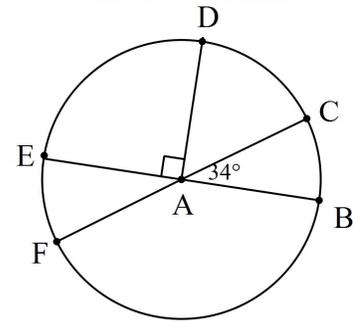
4) $\angle FAB$

2) $\angle DAC$

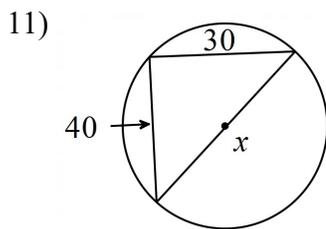
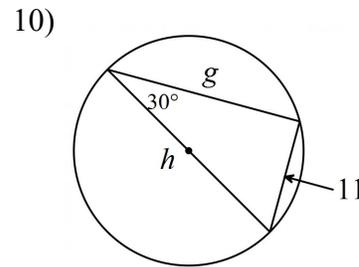
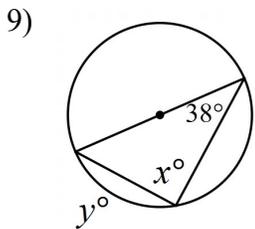
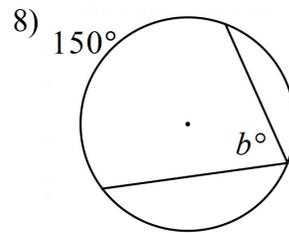
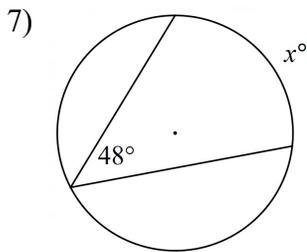
5) \widehat{EFB}

3) \widehat{DF}

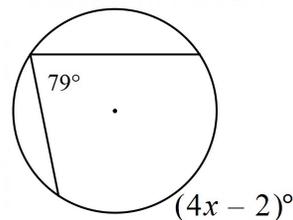
6) \widehat{FDB}

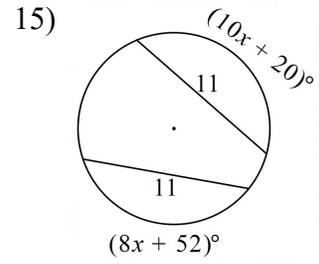
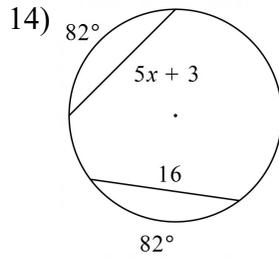
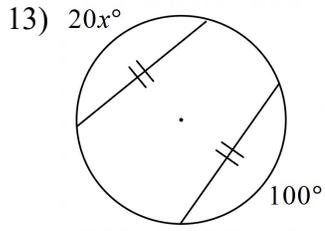


For #7 – 15, find the variable(s) in each diagram. Assume that segments that appear to be tangent are indeed tangent.

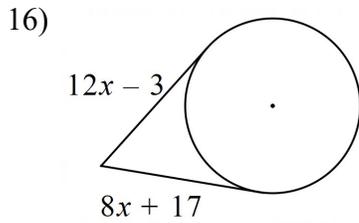


12) Answer in simplified radical.

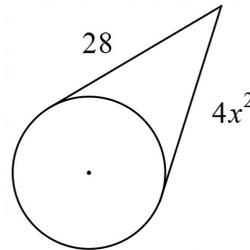




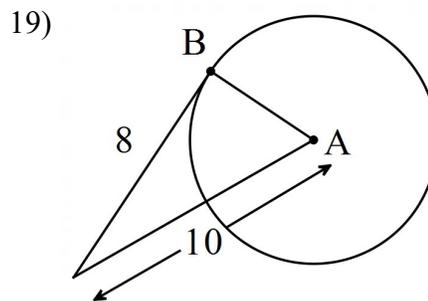
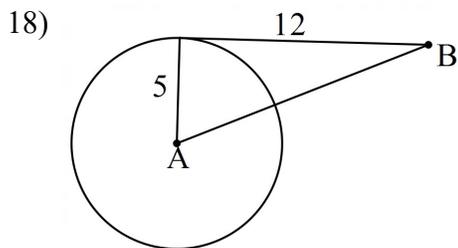
For #16 - 17, find the variable(s) in each diagram. Assume that segments that appear to be tangent are indeed tangent.



17) Answer in radical form.

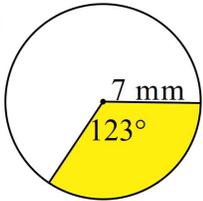


For #18 - 19, find AB. Assume that segments that appear to be tangent are indeed tangent.

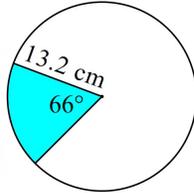


For #20 – 22, find the area of each shaded sector, rounded to one decimal place.

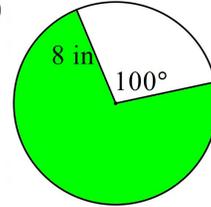
20)



21)

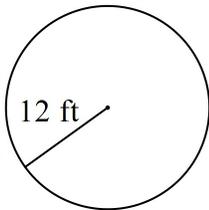


22)

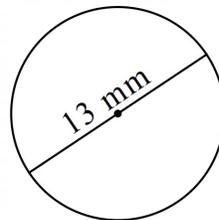


For #23 – 24, find the circumference of each circle *in terms of pi* (no decimals).

23)

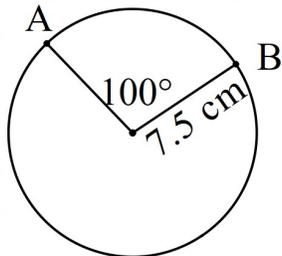


24)

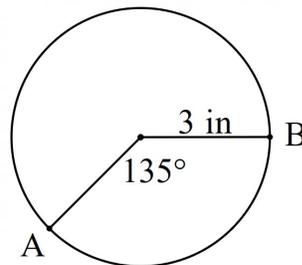


For #25 – 27, find the length of \widehat{AB} . Round to one decimal place.

25)



26)



End of Chapter 10 Homework