

October 23, 2018, Tuesday
 Draw a circle and a secant line.
 Draw a circle and a tangent line.

Oct 17-2:06 PM

Geometry Name _____ ID: 1
 Central Angles
 Name the arc made by the given angle.
 1) $\angle MQC$ 2) Major arc for $\angle GQH$
 LM minor arc GH major arc
 Name the central angle of the given arc.
 3) \widehat{AC} $\angle AQC$ 4) \widehat{GH} $\angle I$
 Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.
 5) $\angle = 160^\circ$ 6) $\angle = 90$
 7) $m\angle SRT$ 70° diameter line $= 180^\circ$ 8) $m\angle FHE$ $\angle FHE = 170^\circ$ $\angle GF = 115^\circ$ 65°

Oct 23-7:56 AM

Geometry Name _____ ID: 1
 Central Angles
 Name the arc made by the given angle.
 1) $\angle MQC$ 2) Major arc for $\angle GQH$
 Name the central angle of the given arc.
 3) \widehat{AC} 4) \widehat{GH}
 Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.
 5) 160° 6) 90°
 7) $m\angle SRT$ 70° 8) $m\angle FHE$ 65°

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Copy p 670 - inscribed Quadrilateral Theorem

What does this theorem mean related to this picture?

$A + C = 180$
 $B + D = 180$

Oct 23-7:57 AM

Geometry Name _____ ID: 1
 Inscribed in a Circle
 Find the measure of the arc or angle indicated.
 1) $97^\circ \times 2 = 194 = ?$
 2) $86 \times \frac{2}{2} = 172$
 3) $2\sqrt{x} = 99 \times 2 = 198$ diameter $\angle = 180 - 68 = 112$
 5) $\angle FDE = \frac{64}{2} = 32$ 6) $\frac{180}{2} = 90$
 7) $\frac{198}{178}$ 8) $\frac{180}{2} = 90$

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7) $180 - 68 = 112$
 8) $360 - 144 = 216$
 9) $180 - 95 = 85 = ?$
 10) $177 - 180 = -3$
 Solve for x:
 11) $13x - 8 = 2(24)$
 $13x - 8 = 48$
 $13x = 56$
 $x = \frac{56}{13}$
 Find the measure of the arc or angle indicated.
 13) Find $m\widehat{EG}$ 14) Find $m\widehat{KE}$

Oct 23-8:00 AM

Geometry _____ Name _____ ID: 1
 Inscribed in a Circle _____ Date _____ Period _____
 Find the measure of the arc or angle indicated.

1) 194°

2) 172°

3) 118°

4) 112°

5) 33°

6) 77°

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7) 46°

8) 42°

9) 55°

10) 74°

Solve for x.

11) 128°

12) 134°

13) Find $m\widehat{EG}$. 160°

14) Find $m\widehat{KJ}$. 62°

Oct 23-8:01 AM

Oct 24, 2018, Wednesday

Find the measure of the arc or angle indicated.

1) 111°

2) 90°

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

3) ? = 150

4) 129°

Oct 23-11:58 AM

The Tangent-Secant Exterior Angle Measure Theorem
 If a tangent and a secant, two tangents, or two secants intersect in the exterior of a circle, then the measure of the angle formed is half the difference of the measures of its intercepted arcs.

$m\angle 1 = \frac{1}{2}(m\widehat{AD} - m\widehat{BD})$ $m\angle 2 = \frac{1}{2}(m\widehat{EHG} - m\widehat{EG})$ $m\angle 3 = \frac{1}{2}(m\widehat{N} - m\widehat{KM})$

Angle Relationships in Circles

Vertex of the Angle	Measure of Angle	Diagrams
On a circle	Half the measure of its intercepted arc	$m\angle 1 = 60^\circ$
Inside a circle	Half the sum of the measures of its intercepted arcs	$m\angle 1 = \frac{1}{2}(44^\circ + 80^\circ) = 65^\circ$
Outside a circle	Half the difference of the measures of its intercepted arcs	$m\angle 1 = \frac{1}{2}(202^\circ - 78^\circ) = 62^\circ$

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So what do you notice????

Angle Relationships in Circles

On a circle: $m\angle = \frac{1}{2}(m\widehat{arc})$

Inside a circle: $m\angle = \frac{1}{2}(m\widehat{arc1} + m\widehat{arc2})$

Outside a circle: $m\angle = \frac{1}{2}(m\widehat{arc1} - m\widehat{arc2})$

Handwritten notes:
 - If the \angle is inside the circle, use $+$.
 - If the \angle is outside the circle, use $-$.
 - Central \angle s: x° and $2x^\circ$.
 - Quadrilateral: opposite \angle s are supplementary.

Oct 24-10:51 AM

Geometry _____ Name _____ ID: 1
 Circles, Secant & Tangents _____ Date _____ Period _____
 Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1) 130°

2) 117.5°

3) 134°

4) 86°

5) 155°

6) 138°

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7) $\angle = \frac{1}{2}(\text{arc} + \text{arc})$
 $\angle = \frac{1}{2}(62 + 160)$
 $\angle = \frac{1}{2}(222) = 111$

8) $\angle = \frac{1}{2}(\text{arc} + \text{arc})$
 $\angle = \frac{1}{2}(155 + 65)$
 $\angle = \frac{1}{2}(220)$
 $\angle = 110$

9) $\angle = \frac{1}{2}(158)$
 $\angle = 79$

10) $\angle = \frac{1}{2}(100)$
 $\angle = 50$

11) $\angle = \frac{1}{2}(\text{large arc} - \text{small arc})$
 $2(41) = \text{?} - 64$
 $82 = \text{?} - 64$
 $+64 = \text{?}$
 $146 = \text{?}$

12) $\angle = \frac{1}{2}(\text{large arc} - \text{small arc})$
 $2(41) = \text{?} - 155$
 $82 = \text{?} - 155$
 $+155 = \text{?}$
 $237 = \text{?}$

Oct 23-11:58 AM

Geometry Name: _____ ID: 1
 Circles, Secant & Tangents Date: _____ Period: _____
 Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1) 80°

2) 55°

3) 46°

4) 274°

5) 70°

6) 42°

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7) 111°

8) 110°

9) 79°

10) 120°

11) 140°

12) 41°

Oct 23-12:00 PM

October 25, Thursday

Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

1) 295°

2) 88°

3) 159°

4) 125°

5) 90°

6) 159°

7) 180°

8) 92°

9) 88°

10) 88°

11) 88°

12) 88°

13) 88°

14) 88°

15) 88°

16) 88°

17) 88°

18) 88°

19) 88°

20) 88°

21) 88°

22) 88°

23) 88°

24) 88°

25) 88°

26) 88°

27) 88°

28) 88°

29) 88°

30) 88°

31) 88°

32) 88°

33) 88°

34) 88°

35) 88°

36) 88°

37) 88°

38) 88°

39) 88°

40) 88°

41) 88°

42) 88°

43) 88°

44) 88°

45) 88°

46) 88°

47) 88°

48) 88°

49) 88°

50) 88°

Oct 24-12:27 PM

Unit 4 Study guide for Quiz 1 - are you ready for secants and tangents?

Unit 4 56.1 - Angles & Arcs Name: _____

Circle the diagram, match the notation with the term that best describes it. (Use 1-4 times.)

- Center
- Chord
- Diameter
- Radius
- Point of tangency
- Secant
- Tangent

In circle M, m∠BAC = 50 and m∠CDE = 90. m∠BCE and BE are diameters. Find the measure of each arc or angle.

- AB = 130
- CD = 180
- AE = 180
- DE = 180
- m∠AMB = 180
- m∠EMC = 180

Find the measure of the indicated arc or angle.

- 70°
- 90°
- 41°
- 140°
- 111°
- 110°
- 79°
- 120°
- 140°
- 41°

Oct 17-3:25 PM

18. What is the value of x? 50

19. Find angle x. 110 & $y = 78$

20. Find angles 1 and 2. 180

21. $AB = 180$, $BC = 54$, $AC = 126$

22. Determine if AB is tangent to radius BC. $9^2 + 12^2 = 13^2$
 $81 + 144 = 169$
 $169 = 169$ Yes, tangent

Oct 25-10:08 AM

October 26, 2018, Friday

Choose 2!

Solve for x.

$m \widehat{AC} = 178$
 $m \widehat{CH} = 102$

$\angle = \frac{1}{2}(178 - 102)$
 $x = \frac{1}{2}(178 - 102)$
 $x = \frac{1}{2}(76)$
 $x = 38$

Solve for x.

148°

$\frac{148}{2} = 74$

If arc AB = 40 & arc CD = 20, find $\angle 1$ & $\angle 2$.

$\angle = \frac{1}{2}(\text{arc} + \text{arc})$
 $\angle = \frac{1}{2}(40 + 20)$
 $\angle = \frac{1}{2}(60)$
 $\angle = 30$

$\frac{180}{2} = 90$
 $90 - 30 = 60$
 $\frac{60}{2} = 30$

What is arc AB & arc ACB?

$360 - 82 = 278$

Read, then Quiz

Oct 24-12:29 PM

Geometry Name _____ ID: 1

Circumference of a circle... what is 'part' of a circumference called?

Find the circumference of each circle. $C = 2\pi r$ Round your answer to the nearest tenth.

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What is an arc length & how it arc length related to circumference of a circle?

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Geometry Name _____ ID: 1

Circle circumference to arc length

Find the diameter of each circle. Round your answer to the nearest tenth.

-

Find the radius of each circle. Round your answer to the nearest tenth.

-

Find the circumference of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

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Oct 17-3:29 PM

Find the length of each arc. Round your answers to the nearest tenth. Remember arc length is a 'piece' of the circumference.

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