

Geometry - Circles Part 2

Chapter 10 --- segments
Section 2, 4, 5
May 6-13

Standards

Common Core:

HSG-CO.A.1,
HSG-CO.D.13,
HSG-C.A.1,
HSG-C.A.2,
HSG-C.A.3,
HSG-C.A.4,
HSG-MG.A.1,
*HSG-MG.A.3,
HSG-GPE.A.1,
HSG-GPE.B.4

CP Period 3 Geometry Timeline Schedule

Friday - May 3 --- Students take notes on the section 10.2 Angles/Arcs

Monday May 6 --- Review notes and assign 10.2 online bigideasmath.com

Tuesday --- Inscribed angles - Drawing discovery/verification activity

Wednesday --- Assign online 10.4 bigideasmath.com -- field trip for a few

Thursday --- Circumscribed angles - Notes and student journal examples

Friday --- Assign online 10.5 bigideasmath.com

Next week Practice Monday/Tues.

Test Wednesday May 15th

Then Review topics for Final Exam

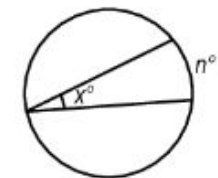
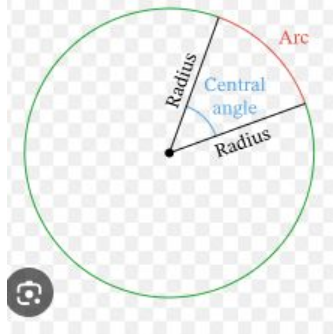
Exam on Friday May 24

Formulas with x, m, n are the focus on angles for test

KEYSTONE

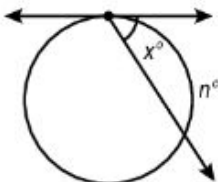
REFERENCE

GEOMETRY FORMULA SHEET – PAGE 1



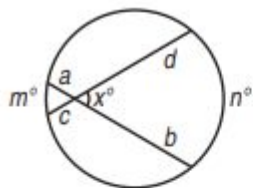
Inscribed Angle

$$x = \frac{1}{2}n$$



Tangent-Chord

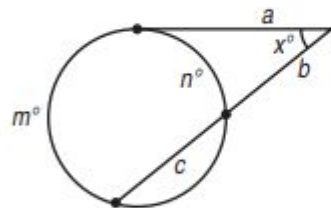
$$x = \frac{1}{2}n$$



2 Chords

$$a \cdot b = c \cdot d$$

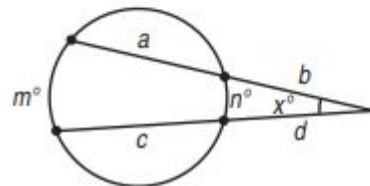
$$x = \frac{1}{2}(m + n)$$



Tangent-Secant

$$a^2 = b(b + c)$$

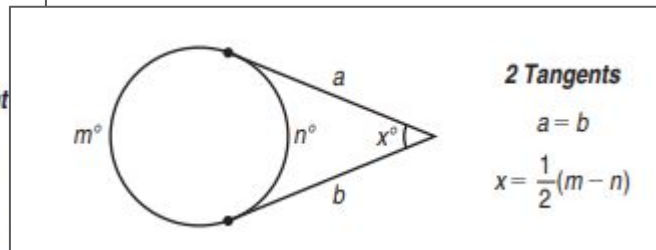
$$x = \frac{1}{2}(m - n)$$



2 Secants

$$b(a + b) = d(c + d)$$

$$x = \frac{1}{2}(m - n)$$



2 Tangents

$$a = b$$

$$x = \frac{1}{2}(m - n)$$

Section 10.2 Objectives & Vocabulary

Video Notes from textbook online app Examples 1-4

Student Journal pg. 287 # 1-11 as practice and examples

Geometry Lesson 10.2 – Day 1: Finding Arc Measures

Essential Question: How are circular arcs measured?

Lesson Objective(s): Students will find arc measures.

Students will identify congruent arcs.

Students will prove circles are similar.

Previous Learning: Students have explored and defined the different lines and segments that intersect circles.

New Vocabulary: central angle, minor arc, major arc, semicircle, measure of a minor arc, measure of a major arc, adjacent arcs, congruent circles, congruent arcs, similar arcs

CC State Standards

HSG-C.A.1
HSG-C.A.2

CC Mathematical Practice Focus

MP2, MP5

Online Assignment - bigideasmath.com 10.2

Finding Arc Measures

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Section 10.4 Objectives & Vocabulary

Video Notes from textbook online app Examples 1-4

Student Journal pg 293-296 Show the inscribed angle using tools

Student Journal pg. 297 # 1-7as practice and examples

Geometry Lesson 10.4 – Day 1: Inscribed Angles and Polygons

Essential Questions: How are inscribed angles related to their intercepted arcs? How are the angles of an inscribed quadrilateral related to each other?

Lesson Objective(s): Students will use inscribed angles.
Students will use inscribed polygons.

Previous Learning: Students have learned about the measures of angles and angles of polygons.

New Vocabulary: inscribed angle, intercepted arc, subtend, inscribed polygon, circumscribed circle

CC State Standards

HSG-CO.D.13
HSG-C.A.2
HSG-C.A.3

CC Mathematical Practice Focus

MP3, MP6

Online Assignment - bigideasmath.com 10.4

Darkened problems only

1	2	3*	4	5*	6	7*	8	9	10
11*	12	13*	14	15*	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

Section 10.5 Objectives & Vocabulary

Video Notes from textbook online app Examples 1-4

Student Journal pg 301 has summary list:

Student Journal pg. 302 # 1-9 as practice and examples

Geometry Lesson 10.5 – Day 1: Angle Relationships in Circles

Essential Question: When a chord intercepts a tangent line or another chord, what relationships exist among the angles and arcs formed?

Lesson Objective(s): Students will find angle and arc measures.
Students will use circumscribed angles.

Previous Learning: This lesson extends the relationships found in a previous lesson about angles and intercepted arcs of a circle.

New Vocabulary: circumscribed angle

Previous Vocabulary: tangent, chord, secant

CC State Standards

HSG-C.A.2

CC Mathematical Practice Focus

MP3

Online Assignment - bigideasmath.com 10.5



Other Worksheets to practice objectives

Resource Textbook worksheets

10.2 Practice A

10.2 Puzzletime

10.4 Practice A

10.5 Practice A

Kuta Software

Arcs and Inscribed Angles

Secant Angles

Tangent and Secant Angles