Geo 10 Assignment Sheet Chapter 1

Number	Pages	Problems
#1	7	1-10, 13-17 odd, 21-25 Go Beyond #1
#2	15	7-17 odd, 19-26, 31-39 odd Go Beyond #2
#3	21	7-17 odd, 26,27,29-33 odd
#4	25	5-12 all
Review	31	All

# **Test Chapter 1**

#### **GB** Problems

- 1) Find a way to show that points A = (-4, -1), B = (4, 3), and C = (8, 5) are collinear.
- 2) Several angles have the same vertex at Pt. O. Angle AOB is 100 degrees. Angle BOC is 40 degrees. How big is angle AOC? Again, you might want to draw a picture.

Number	Pages	Problems
#5	41-42	6-10 all
#6	46	1-15 odd Go Beyond #3
#7	52-53	1-21 odd
#8	58-59	1-17 odd
#9	63-64	1-17 odd 19,21,22

Review

# **Test Chapter 2**

## GB #3

We will be studying a very important idea called the Vertical Angle Theorem in this chapter. Vertical angles are defined as 2 angles formed by 2 pairs of opposite rays. Draw 2 pairs of opposite rays and label the angles formed as #1, #2, #3 and #4 beginning at the top and numbering clockwise. Prove why Angle #1 and #3 are ALWAYS congruent.

Chapter 3		
Number	Pages	Problems
#10	80-82	1-11 odd 15-21 odd
#11	87-88	1-15 odd 18, 24-27 all
Quiz 3.1-3.3		Go Beyond #4
#12	97-99	5-15 odd 19-25 odd 29
#13	104-105	1-8 all 9-17 odd

## Quiz 3.4-3.5

Assignment Sheet

GB #4

Draw Triangle ABC. Extend a segment from point C and label Point D somewhere on the segment. If <BCD (called an Exterior Angle) is 120 degrees and <ABC is 50 degrees find the measure of <BAC. Can you see a connection between any of the 4 angles?

Number	Pages	Problems
#14	124-126	1-15 all 18,19 Go Beyond #5
#15	130-131	1, 2, 3, 7, 8
#16	137-138	1-8 all 17,18
#17	138	19-21
#18	144-145	3-8 all 11-15 all
#19	149	4-8 all

# GB #5

If  $\triangle ABC \cong \triangle DEF$  what can you say about  $\overline{AB}$  and  $\overline{DE}$ ? What can you say about  $\angle C$  and  $\angle F$ ?

Review

**Test Chapter 4** 

Number	Pages	Problems
#20	156-157	7-13 all, 19
#21	169-170	5-9 odd 21,23,29,30 Go Beyond #6
#22	174-175	10,15-21 odd
#23	180-181	7-15 odd, 17,19 Go Beyond #7
#24	187-188	1-19 odd, 26-29 all
#25	192-193	7-17 odd

Review

# Test 4.7 and Chapter 5

## GB #6

One way to prove a quadrilateral is a parallelogram is to show that both pairs of opposite sides are congruent. Draw quadrilateral ABCD and prove this idea.

## GB #7

A rhombus is a special type of Parallelogram whose four sides are all equal. If the diagonals of a parallelogram meet at right angles, prove that that shape is a rhombus.

Number	Pages	Problems
#26	243-244	1-5, 24,25,29
#27	247-248	13-19 odd, 23,26 Go Beyond # 8
#28	250-251	15-27 odd
#29	257-258	10-13, 16,18,19 Go Beyond #9
#30	266	4,5,9,12
#31	272	3-13 odd, 21

## REVIEW

## Test Ch.7

GB #8

One triangle has sides that are 5CM, 7CM and 8CM long. The longest side of a similar triangle is 6CM. Find the lengths of the other two sides.

GB#9

The sides of a triangle are 10CM,14CM and 16CM long while the **CORRESPONDING** sides of another triangle are 15CM, 21CM and 24CM. On the basis of this information, what can you say about the angles of these triangles? What can you say about the triangles themselves?

Number	Pages	Problems
#32	288	17-29 odd
#33	289	31-39 all Go Beyond #10
#34	292-293	11-27 odd Go Beyond #11
#35	296-297	1-13 odd Go Beyond #12
#36	302-303	17-29 all

## REVIEW

#### Test 8.1-8.4

#### GB#10

In baseball, the bases are placed at the corners of a square whose sides are 90 feet long. Home plates and second base are at opposite corners of the diamond. How far is it (in feet) from home plate to second base?

#### GB#11

The three sides of a triangle measure 8CM, 15CM and 17CM. What kind of a triangle is this and why? Can you come up with a theorem that describes your answer?

## GB#12

The diagonals of a square have a length of 10CM. How long are the sides of the square? What is the ratio of the side to the diagonal?

Number	Pages	Problems
#37	330-331	3,5,12-15 all
#38	335-336	1,3,5,8,10 Go Beyond #13
#39	341	1-8 all, 11,16 Go Beyond #14
#40	347-348	1-9 all, 18
#42	354-355	1-9 all, 19-21 all Go Beyond #15
#43	359-360	1-10 all,11-19 odd

## REVIEW

## **TEST Chapter 9**

#### GB#13

An **ARC** is a piece of the circle that has length and degree measure as well. What is the degree measure of an arc that intersects a diameter of a circle? What do you think it is called?

## GB#14

A circle with Center at (2,1) is tangent to the line y = 3x + 5 at point A (-1,2). Make a sketch in the X/Y axis and draw a radius from the center of the circle to the point of tangency. What is the angle (in degrees) of intersection between this tangent line and the radius at Point A? Why?

# GB#15

A 20 inch chord is drawn in a circle with a 20 inch radius. What is the angular size of the minor arc of the chord?

## Assignment Sheet Chapter 11

Number	Pages	Problems
#44	426-427	17-29 odd Go Beyond #16
#45	431	1-19 odd
#46	436-437	9-21 odd Go Beyond #17
#47	443-444	1-12 all, 13,15
#48	448-450	1,4,11,12,15,28 Go Beyond #18
#49	453-454	1-19 odd
#50	458-459	1,4,7,13,15,20

## REVIEW

**TEST Chapter 11** 

#### GB#16

The area of an equilateral triangle is  $100\sqrt{3}$  square inches. How long are its sides?

#### GB#17

A **REGULAR** polygon is a polygon whose sides and angles are all equal. Draw a regular hexagon inscribed inside a circle whose radius is 6. Find the area of the hexagon.

#### GB#18

A sector of a circle is the region bounded by 2 radii and an arc. Its area is a fractional amount of the area of the circle. Compare the AREAS of 2 sectors if:

a) they have the same central angle but the radius of one is twice as long as the radius of the other.

b) they have the same radius but the central angle of one is twice as large as the central angle of the other.

Number	Pages	Problems
#51	478-479	1,4,10,17,21 Go Beyond #19
#52	485	4,10,13,16 Go Beyond #20
#53	492-494	2,5,6,12,15,29
#54	500	5,7,13,16
#55	511	3,5,7,8,9

## REVIEW

## **Test Chapter 12**

## GB #19

The BASE of the smaller pyramid at Luxor in Egypt is a regular hexagon which has sides of 20 meters. All six of the pyramid's LATERAL EDGES are 30 meters long. Calculate the area of the six LATERAL FACES and the area of the base. What would the volume of the pyramid be? Use your book or any other resources to help you.

## GB #20

A conical ice cream cone is 2 inches in diameter and is 5 inches deep. How much ice cream can the cone hold (without spilling over) if the ice cream melts?