GEOMETRY 22 ASSIGNMENT GUIDE
CHAPTER 9: **Pythagorean Theorem**

Looking for **ch 8 Syllabus**?

➔ Make sure to sketch all shapes.

- For homework,
  - Label **large** diagrams
  - Mark diagram, showing work or giving conjecture/explanation for single answers
  - If you can't solve a problem, write out *your* question
- Remember to check odd homework ***solutions*** *before* coming to class
- BRING YOUR NETBOOK
  - EXTRA PRACTICE **PROBLEMS**

- **Notes & homework packet (and hwk solutions) (notes solutions--teachers only)**
- **Project**
- **Flipped lesson videos and notes**
  - **Formulas**

- GET TEXT MESSAGE OR EMAIL, REMINDERS by clicking **here**

DAY Date	**SECTION**	**In-Class Objectives**	**HOMEWORK** **A/B**: Above and Beyond Probs	**Extra Practice**
A 2/8	9.1A Alg Rev	**Working with radicals** Flipped **videos** Solutions to radicals	Watch videos at Day H, I Complete worksheet	$\sqrt{84}$ **video**
B 2/11	9.1A Alg Rev	Simplifying Radicals Part II	Hwk **Sheet #1-10** Practice your circle drawing,	**Videos**
C 2/12	9.1	The Theorem of Pythagoras: water	Video1, Video2, **proofs** Hwk **packet**, pages 1 and 2 or do this ⇒	**pg 465** #2,3,5,6, 9,10, 13
D 2/13	9.1	More Pyth theorem & Test Corrections Pythagorean Rap	**Test Corrections** similar problems & **Worksheet**: 3 problems	
E 2/14	9.2	Converse of the Pythagorean Theorem activity	**Video: Pyth Thm Converse** Pg 3-4 of Wksht: #2,4,8,9,10,13,16	
F	9.4	Applications of the PT	Do at least 6 problems from pg 5-8 of **Review** including #9,14,15 **A/B:** 3,5	pg 9-11 in notes: #2,4,8,9,11

G	Review	Using PT to find sides of special right triangles	**Space Diagonals Video** Do 6 problems from orange packet pgs 7-9	
H		Using PT to find sides of special right triangles	Complete the Review sheet and check **SOLUTIONS** (#16: y=2 & x=2.8; #17 y=3 & x=5.2; #18: x=y=2.8; #19: b=1.6 & a=2)	
I	**Review**	**9.1-9.4** **Review and solutions**	Do Quiz corrections, memorize π, & do Alg work Watch Day H videos	More Review **Solutions**
J	**Quiz**	**9.1-9.4**	• Watch **Videos d-f &** complete pages 12-13 in orange notes packet.	Watch 1. **Intro video**, 2. **Multiplying Radicals,** 3. **Rationalizing a Denominator**
K	Pi Day	**Pi Day**: Pi Bee, Circle Drawing contest, & more **Solutions** to radicals pg 1-2	• See videos **d-f**. • Hwk **Sheet #18-23**	**30-60-90 Triangle Videos** **A/B: Calculating Coordinates in the Unit Circle**
L	9.3	Special Right triangles	Finish the hwk **Sheet**	**Special right triangles Kahoot Review**
M	9.3	Special Right triangles: method: solving equation	•	
N 2-25	**9.3**	**4 methods** for finding sides of special right triangles		
O 2-26	9.5	Distance between 2 points using coordinates	• Watch video **M** Hwk is to complete the yellow packet or do 5 probs from the pink sheet	**Distance Formula video**
P 2-27	Review	Quiz: 9.4 Distance formula	On a separate sheet, do the	
Q 2-28	9.5	**Equation of a Circle**	2 problems from each section on pgs 14-15	**Writing an equation of a circle Video**
R 3-1		Review	**Review** packet	More review: **review** & **answers** & Solutions to similar problems Worksheet & **SOLUTIONS**
S		**Chap 9 Test**		

Essential Questions

A. What does the pythagorean Theorem help find and when can you use it?

B. What special right triangles only require that you know one side in order to find the other two sides? What are these ratios?

C. How can you know the type of triangle formed only using the 3 side lengths?

D. What are the common pythagorean triples and how are they useful?

E. How does the Pythagorean Theorem relate to the equation of a circle and the distance formula?

F. How does the Pythagorean Theorem help solve problems from previous units?

Essential Targets

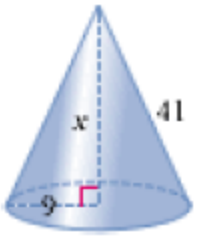
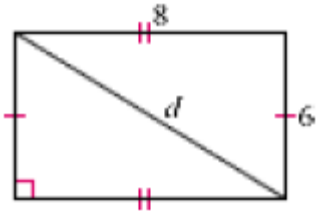
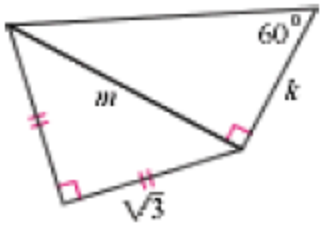
I. Be able to find the right triangle in any situation and apply the Pythagorean Theorem or special right triangle properties

II. Apply the Pythagorean theorem to find distances and write circle equations

For each Subtarget rate[and re-rate] your level of understanding:

- **T**(can Teach it),
- **P**(Proficient-get it & can do it),
- **d**(developing-need a bit more practice),
- **A**(Assistance-help me now!)

Ch 9 Subtargets	Sample Problems	Level of Current Understanding

9.1.a *Apply the Pythagorean Theorem.*	$x = \underline{?}$  $d = \underline{?}$ 	
9.2 *Determine if a triangle is a right triangle.*	Is a triangle with sides measuring 9 feet, 12 feet, and 18 feet a right triangle? A window frame that seems rectangular has height 408 cm, length 306 cm, and one diagonal with length 525 cm. Is the window frame really rectangular? Explain.	
9.4 I can *apply the Pythagorean Theorem to real-world scenarios*	A baseball infield is a square, each side measuring 90 feet. To the nearest foot, what is the distance from home plate to second base? A rectangular garden 6 meters wide has a diagonal measuring 10 meters. Find the perimeter of the garden.	
9.3 *Apply relationships to special right triangles.*	Find the perimeter of an equilateral triangle whose median measures 6 cm. 	
9.5.a *Find the distance between 2 points in the coordinate plane*	Find the perimeter of $\triangle ABC$ with vertices $A(2, 4)$, $B(8, 12)$, and $C(24, 0)$.	
9.5.b *Write and interpret the equation of a circle.*	find the radius and center of the circle. $x^2 + (y - 1)^2 = 81$ find the equation of the circle. Center = $(2, 0)$, $r = 5$	

Start Quiz corrections
#1 review: 9.1-9.4 REview: Also do the ch 11 **Test Corrections**

Programming distance formula into TI-83	On a separate sheet, for each section on the **purple** packet complete 4 problems (including 2 word probs)

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A 2/26	9.1	The Theorem of Pythagoras	Video1, Video2, **proofs** Hwk **packet**, pages 1 and 2 or do this ⇒	**pg 465** #2,3,5,6, 9,10, 13
B 2/29	9.1	More Pyth theorem & Test Corrections	**Test Corrections** similar problems & **Worksheet**: 3 problems	
C 3/1	9.2	Converse of the Pythagorean Theorem	**Video: Pyth Thm Converse** Pg 3-4 of Wksht: #2,4,8,9,10,13,16	
D 3/2	9.4	Applications of the PT	Do at least 6 problems from pg 5-8 of **Review** including #9,14,15 **A/B:** 3,5	pg 9-11 in notes: #2,4,8,9,11
E 3/3	Review	Using PT to find sides of special right triangles	**Space Diagonals Video** Do 6 problems from orange packet pgs 7-9	
F 3-4		Using PT to find sides of special right triangles	Complete the Review sheet and check **SOLUTIONS** (#16: y=2 & x=2.8; #17 y=3 & x=5.2; #18: x=y=2.8; #19: b=1.6 & a=2)	

G 3-7	**Review**	**9.1-9.4**	Do Quiz corrections, memorize π, & do Alg work Watch Day H videos	More Review **Solutions**
H 3-8	**Quiz**	**9.1-9.4**	• Watch **Videos d-f &** complete pages 12-13 in orange notes packet.	Watch 1. **Intro video**, 2. **Multiplying Radicals,** 3. **Rationalizing a Denominator**
I 3-9	9.1A Alg Rev	**Working with radicals** Flipped **videos** Solutions to radicals	Watch videos at Day H, I Complete worksheet	$\sqrt{84}$ **video**
J 3-10	9.1A Alg Rev	Simplifying Radicals Part II	Hwk **Sheet #1-10** Practice your circle drawing, **memorize** π, and bring in $	**Videos**
K 3-14	Pi Day	**Pi Day**: Pi Bee, Circle Drawing contest, & more **Solutions** to radicals pg 1-2	• See videos **d-f**. • Hwk **Sheet #18-23**	**30-60-90 Triangle Videos** **A/B: Calculating Coordinates in the Unit Circle**
L 3-15	9.3	Special Right triangles	Finish the hwk **Sheet**	**Special right triangles Kahoot Review**
M 3-16	9.3	Special Right triangles: method: solving equation		
N 3-17	**9.3**	**4 methods** for finding sides of special right triangles		
O 3-18	9.5	Distance between 2 points using coordinates	• Watch video **M** Hwk is to complete the yellow packet or do 5 probs from the pink sheet	**Distance Formula video**
P 3-21	Review	Quiz: 9.4 Distance formula	On a separate sheet, do the	
Q 3-22	9.5	**Equation of a Circle**	2 problems from each section on pgs 14-15	**Writing an equation of a circle Video**
R 3-23		Review	Do **review** & check **answers** & Solutions to similar problems	More review: Worksheet & **SOLUTIONS**
S 3-24		**Chap 9 Test**	Watch 3 videos: First	Chap 10 **Syllabus**
		Spring Break	**ENJOY THE BREAK**	