

Honors Geometry

Congruent Triangles

Unit 4 Assignment Sheet

Day	Date	Topics	Homework
1	Tues., 9/21	4-1: Congruent Figures 4-2: SSS & SAS	p. 182 4, 8, 12, 16, 28 40, 46, 49-52 p. 189 1-4, 14, 16, 20, 22, 24, 26, 28, 30, 36, 38, 42
2	Wed., 9/22 ER day	Puzzle Proofs Review	
3	Thurs., 9/23	4-3: ASA & AAS 4-4: CPCTC	p. 197 2, 6, 8, 10, 12, 16, 18, 20, 24, 28, 32, 34 p. 204 4, 8, 10, 12, 14, 16, 22, 28, 36
3	Fri., 9/24	*****QUIZ*****	
4	Mon., 9/2	4-5: Isosceles & Equilateral Triangles 4-6: Congruence In Right Triangles (HL, HA, LL, LA)	p. 213 2-48 E omit 32 & 42 p. 219 2, 6, 8, 10, 12, 14, 16, 20, 22, 28, 36
5	Tues., 9/28	4-7: Using CPCTC & Overlapping Triangles or 2 Triangles Kite Proofs	p. 226 4, 6, 8, 10, 12, 14, 16, 18, 24, 28, 32 6-29 exs 1-5
6	Wed., 9/29	Chapter Review Worksheet	Finish Review Sheet
7	Thurs., 9/30	*****Test Unit 4*****	
	Fri., 10/1	Ag Day	

More Practice:

Chapter Review: p. 233 1-39 Extra Practice p. 693 1-26
p. 228 #15 & #17 (prove 2 sets of triangles congruent)

HINT: When naming congruent triangles, name the first figure in **alphabetical** order (if possible) and the second one with the correct corresponding parts. This will NOT be the only correct answer but it will make checking answers easier for you and me. This hint will oftentimes not be possible when naming angles since the vertex must be the middle letter.

Unit 4

Vocabulary:

base of an isosceles triangle

base angles of an isosceles triangle

congruent polygons

corollary

CPCTC

(corresponding part of congruent triangles are congruent)

hypotenuse

legs of a right triangle

legs of an isosceles triangle

vertex of an isosceles triangle

Theorem: If two angles of one triangle are congruent to two angles of another triangle, then the third angles are congruent.

Note: (the triangles may or may not be congruent)

Postulate: The three sides of one triangle are congruent to three sides of another triangle, then the triangles are congruent. (SSS)

Postulate: The two sides and the included angle of one triangle are congruent to two sides and the included angle of another triangle, then the triangles are congruent. (SAS)

Postulate: The two angles and the included side of one triangle are congruent to two angles and the included side of another triangle, then the triangles are congruent. (ASA)

Postulate: The two angles and a non-included side of one triangle are congruent to two angles and a non-included side of another triangle, then the triangles are congruent. (AAS)

Isosceles Triangle Theorem: If two sides of a triangle are congruent, then the angles opposite those sides are congruent.

Corollary: If a triangle is equilateral, then it is equiangular.

Converse of the Isosceles Triangle Theorem: If two angles of a triangle are congruent, then the sides opposite those angles are congruent.

Theorem: The bisector of the vertex angle of an isosceles triangle is the perpendicular bisector of the base.

Right Triangle Theorems:

Theorem: If the hypotenuse and a leg of one right triangle are congruent to the hypotenuse and a leg of another right triangle, then the triangles are congruent. (HL)

Theorem: If two legs of one right triangle are congruent to two legs of another right triangle, then the triangles are congruent. (LL)

Theorem: If the hypotenuse and an acute angle of one right triangle are congruent to the hypotenuse and an acute angle of another right triangle, then the triangles are congruent. (HA)

Theorem: If a leg and an acute angle of one right triangle are congruent to a leg and acute angle of another right triangle, then the triangles are congruent. (LA)