Name: Key

Date: \_\_\_\_\_

Use the following to review for you test. Work the Practice Problems on a separate sheet of paper.

What you need to know & be able to do	Things to remember		
A. Solve for x when the angles are supplementary.	Angles add to 180°	1. $30^{\circ}$ $2x - 50^{\circ}$ $2x - 50 + 30 = 180$ $2x - 20 = 180$ $2x - 200$	2. One angle is 12 more than twice its supplement. Find both angles. $x + 2x + 12 = 180$ $3x + 12 = 180$ $3x = 168$ $x = 56$
B. Solve for x when the angles are complementary.	Angles add to 90°	3.  2x-10  2x-10+x+5=90  3x-5=90  3x-95  x+5  x=31.67	4. $3x + 10^{\circ}$ and $2x - 5^{\circ}$ are complementary. Solve for x. $3x + 10^{\circ} + 7x^{-5} = 90$ $5x + 5^{\circ} = 90$ $5x = 85$
C. Recognize and solve vertical angles	Set vertical angles equal to each other	5.  100°  4x + 12  100°  4x + 12 < 100°  4x < 88  x = 22	6. $\begin{array}{c} x + 50 \\ x + 5 = 7x - 20 \\ 25 = x \end{array}$
D. Name and solve problems involving angles formed by 2 parallel lines and a transversal.	Consecutive interior angles are supplementary. Alternate interior, alternate exterior, and corresponding angles are congruent.	7. $\frac{6x+1}{6x+1+14x-1=180}$ $\frac{6x+1+14x-1=180}{20 \times 180}$ $\frac{x-9}{x-9}$	5+22x 93° 5+22x=93 21x=88 21x=88
		9. 14x-2=70 14x-72 70° x=5.14	10. 17x+6=125 17x = 119 x=7 17x+6

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E. Recognize and solve midsegment of a triangle problems	A midsegment connecting two sides of a triangle is parallel to the third side and is half as long.	11. $A = 2x - 6 = 52$ A = 2x - 6 = 52 A = 2x	12. $5x = \frac{1}{2}(8x + 10)$ 5x = 4x + 1 $40^{\circ}$ 5x = 4x + 1 8x + 10
F. Recognize and solve triangle proportionality theorem problems	If a line parallel to one side of a triangle intersects the other two sides of the triangle, then the line divides these two sides proportionally.	13.  Q 2 5 6  P  9 6 9 X 23  6 × 2 18 X 23	14.  24  15  10  X=26  X=26
G.Solve for x in problems involving the sum of the interior angles of a triangle.	The interior angles of a triangle sum to 180°.	15. 95° 35°	16. $5x-14+3x=90$ 8x-14=90 8x=104 x=13 5x-149
H. Solve for x in problems involving the exterior angle theorem.	The measure of an exterior angle of a triangle equals to the sum of the measures of the two remote interior angles of the triangle.	21° x° 55 34°	18. $3 \times 10^{-2} + 15$ $3 \times 10^{-2} + 10$ $2 \times 10^{-2} + 10$ $3 \times 10^{-2} + 10$
I. Recognize and solve problems involving the congruent base theorem.	If two sides of a triangle are congruent, then the angles opposite those sides are congruent.	19.	20. $y = 12$ $y = 4$
J. Name Corresponding Parts of Triangles.		25. ΔABC ≅ ΔFEG  CA ≅ GF	26. ΔABC ≅ ΔFĒG  ∠GEF ≅ <u>«BA</u>
K. Determine if two triangles are congruent.	Remember the 5 ways that you can do this: SSS, SAS, ASA, AAS, HL	27. SAS	28.