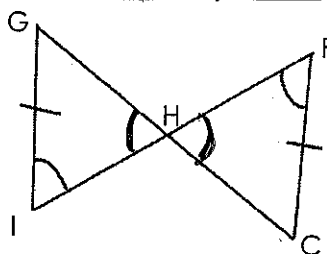
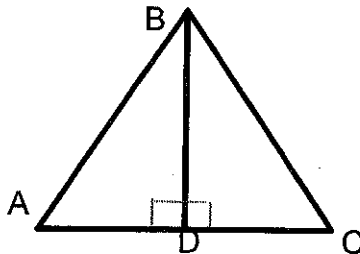
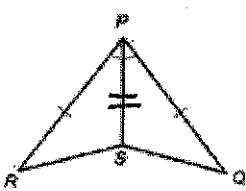
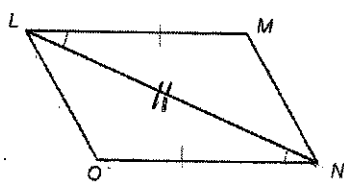
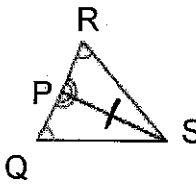
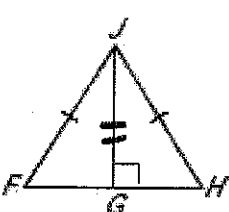
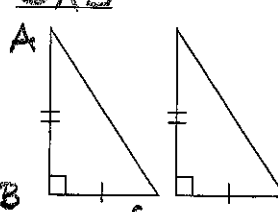
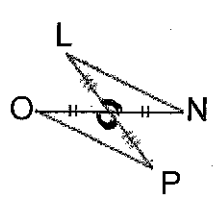
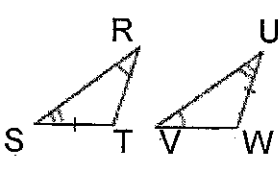
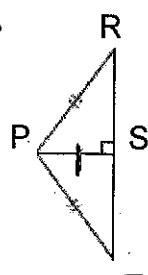


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Date: _____

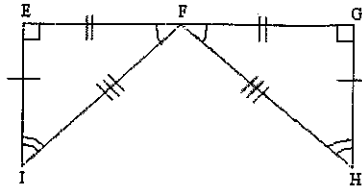
Use the following to review for you test. **Show your work on a separate sheet of paper if needed.**

Things to Know	Things to Remember	Examples	
<p>Triangle Congruence</p> <p>SSS, SAS, ASA, AAS, HL, None</p>		<p>1. $\triangle GHI \cong \triangle CHE$, by <u>AAS</u></p> 	<p>2. $\triangle ABD \cong$ _____, by _____</p> 
		<p>3. $\triangle RPS \cong \triangle QPS$, by <u>SAS</u></p> 	<p>4. $\triangle LNO \cong \triangle NLM$, by <u>SAS</u></p> 
		<p>5. $\triangle RPS \cong \triangle QPS$, by <u>AAS</u></p> 	<p>6. $\triangle FJG \cong \triangle HJG$, by <u>HL</u></p> 
		<p>7. $\triangle ABC \cong \triangle DEF$, by <u>SAS</u></p> 	<p>8. $\triangle LMN \cong \triangle PMO$, by <u>SAS</u></p> 
		<p>9. $\triangle RST \cong \triangle UVW$, by <u>AAS</u></p> 	<p>10. $\triangle RPS \cong \triangle TPS$, by <u>HL</u></p> 

CPCTC
Congruent Parts of Congruent
Triangles are congruent

11.

Name the congruent triangle and the congruent parts.



$\triangle FGH \cong \triangle FEI$

$\angle EFI \cong \angle GFH$

$\overline{FG} \cong \overline{FE}$

$\angle G \cong \angle E$

$\overline{GH} \cong \overline{EI}$

$\angle H \cong \angle I$

$\overline{FH} \cong \overline{FI}$

12.

Use the congruency statement to fill in the corresponding congruent parts.

$\triangle EFI \cong \triangle HGI$ $\angle E \cong \angle H$ $\overline{FE} \cong \overline{GI}$ $\angle EFI \cong \angle HGI$

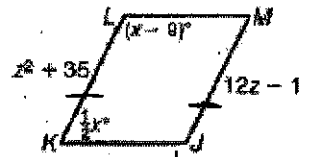
$\overline{FI} \cong \overline{GI}$ $\angle FIE \cong \angle GIH$ $\overline{IE} \cong \overline{IH}$

① $z^2 + 35 = 12z - 1$
 $z^2 - 12z + 36 = 0$
 $(z - 6)(z - 6) = 0$

② $LK = z^2 + 35$
 $= (6)^2 + 35$
 $= 36 + 35$

Solving Quadrilaterals

13. JKLM is a parallelogram.



Find each measure.

$z = 6$

$x = 120$

$LK = 71$

$MJ = 71$

$\angle L = 117$

$\angle K = 63$

$120 - 9$

③ $x - 9 + \frac{1}{2}x = 180$

$1.5x - 9 = 180$

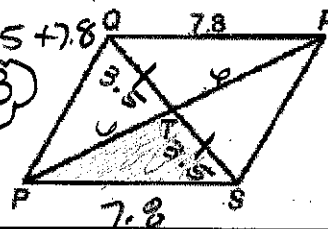
$1.5x = 189$

$x = 126$

14. In $\square PQRS$, $QT = 7x$, $TS = 2x + 2.5$, $RT = 2y$, and $TP = y + 3$. Find the perimeter of $\triangle PTS$.

③

$P = 6 + 3.5 + 7.8$
 $= 17.3$



① $7x = 2x + 2.5$

$5x = 2.5$

$x = 1/2$

$3.5 + 3.5 = 7$

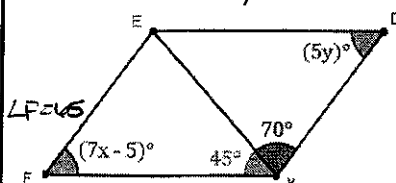
② $2y = y + 3$
 $y = 3$

Rectangle: 4 rt \angle 's
Diagonals \cong

RHOMBUS: Diagonal \perp
All sides \cong

ISOSCELES TRAP: Legs \cong
bases \parallel

15. Find x and y.



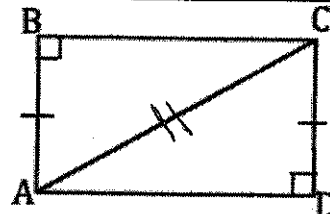
$5y = 65$
 $y = 13$

$5y + 115 = 180$
 $5y = 65$

$\angle Y = 115^\circ$
 $7x - 5 + 115 = 180$
 $7x = 70$
 $x = 10$

16. What are the special properties of a rectangle?
Rhombus? Isosceles trapezoid?

17. Given: $\overline{AB} \cong \overline{DC}$
Prove: $\triangle ABC \cong \triangle CDA$



Statements	Reasons
1. $\overline{AB} \cong \overline{DC}$	1. Given
2. $\overline{AC} \cong \overline{AC}$	2. Reflexive
3. $\angle ABC \cong \angle CDA$	3. Rt \angle 's \cong
4. $\triangle ABC \cong \triangle CDA$	4. HL

Proofs

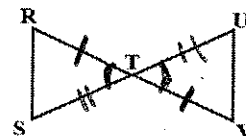
State what is given first, and mark your picture!

Step 1 - Write down the givens

Step 2 - Make any marks that you know are congruent (reflexive property, vertical angles, alternate interior angles)

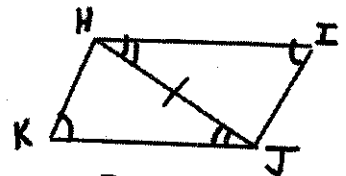
Step 3 - The last Statement will always be showing the Triangles are \cong (SSS, SAS, ASA, AAS, HL)

18. Given: $\overline{RT} \cong \overline{TV}$, $\overline{ST} \cong \overline{TU}$
Prove: $\angle TSR \cong \angle TUV$



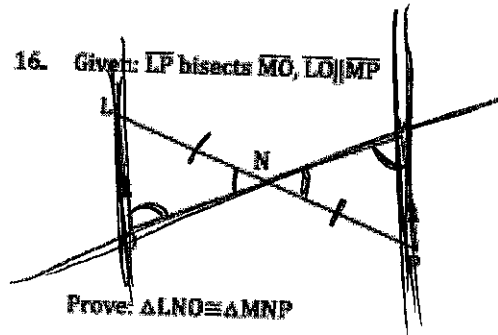
Statements	Reasons
1. $\overline{RT} \cong \overline{TV}$	1. Given
2. $\overline{ST} \cong \overline{TU}$	2. Given
3. $\angle RTS \cong \angle VTU$	3. VA \cong
4. $\triangle RTS \cong \triangle TVU$	4. SAS
5. $\angle TSR \cong \angle TUV$	5. CPCTC

19. Complete the following proof:



Statement	Reason
1. $\angle I \cong \angle K$	1. Given
2. $\angle IHJ \cong \angle KJH$	2. Given
3. $HJ \cong HJ$	3. Reflexive
4. $\triangle HJK \cong \triangle JHI$	4. AAS

20. 15. Given: LP bisects MO, LO || MP



Prove: $\triangle LNO \cong \triangle MNP$

Statements	Reasons
1. LP bisects MO	1. Given
2. $LO \parallel MP$	2. Given
3. $LN \cong MN$	3. Def. Bisect
4. $\angle O \cong \angle M$	4. Alternate Interior
5. $\angle LNO \cong \angle MNP$	5. Vertical Angles
6. $\triangle LNO \cong \triangle MNP$	6. ASA

21.

1. Use the diagram at the right to prove the following theorem:
"If the diagonals of a quadrilateral bisect each other, then the quadrilateral is a parallelogram."

Given: AC bisects BD & BD bisects AC
Prove:

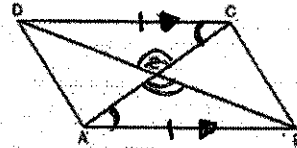


Statements	Reasons
1. AC bis. BD & BD bis. AC	1. Given
2. M is the midpoint of AC; M is the midpoint of BD	2. Def. of segment bisector
3. $AM \cong CM, BM \cong DM$	3. Def. of midpoint
4. $\angle AMB \cong \angle CMD, \angle DMC \cong \angle BMA$	4. VA \cong
5. $\triangle AMB \cong \triangle CMD, \triangle DMC \cong \triangle BMA$	5. SAS
6. $AB \cong CD, BC \cong AD$	6. CPCTC
7. ABCD is a parallelogram	7. If both pairs of opp. sides of a quad. are \cong , then the quad. is a parallelogram

22.

Given: $\square ABCD$

Prove: $\triangle AEB \cong \triangle CED$



STATEMENT	REASONS
1. Parallelogram ABCD	1. Given
2. $\overline{AB} \cong \overline{DC}$	2. Def of \parallel
3. $\overline{AB} \parallel \overline{DC}$	3. Def of \parallel
4. $\angle CAB \cong \angle ACD$	4. Alt \angle
5. $\angle AEB \cong \angle CED$	5. Vert \angle
6.	6.

2. $\overline{AB} \cong \overline{DC}$

3. $\overline{AB} \parallel \overline{DC}$

4. $\angle CAB \cong \angle ACD$

5. $\angle AEB \cong \angle CED$

6. $\triangle AEB \cong \triangle CED$

\square Def of \square

$\angle A \cong$

$\angle A \cong$

AAS