Geometry
CH 4 Review

NAME _____
Period____

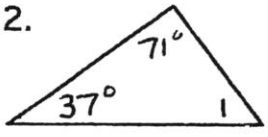
+ Included

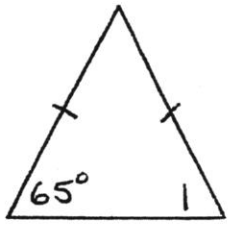
A. acute Δ	F. equiangular Δ	~~K. median~~
B. base	G. equilateral Δ	L. obtuse Δ
C. base angles	H. hypotenuse	M. right Δ
~~D. centroid~~	I. isosceles Δ	N. scalene Δ
~~E. corollary~~	J. legs	O. triangle

1.	The longest side of a right triangle	1._____
2.	A triangle with no congruent sides	2._____
3.	The congruent angles of an isosceles triangle	3._____
4.	A triangle with 3 acute angles	4._____
5.	A figure formed by 3 segments joining 3 noncollinear points	5._____
~~6.~~	A statement that can be proved easily from a theorem	6. E
~~7.~~	The point of intersection of the medians of a triangle	7. D
8.	A triangle with a 35° and a 55° angle	8._____
9.	A triangle with 3 congruent angles	9._____
10.	The two sides of a right triangle that form the right angle	10._____

For 11-16, find $m\angle 1$.

11. 

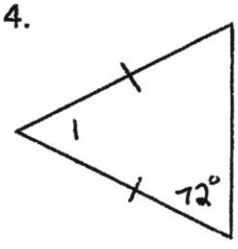
12. 

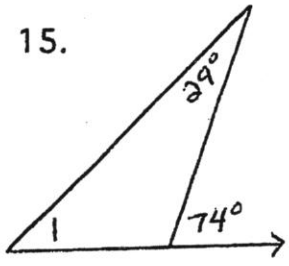
13. 

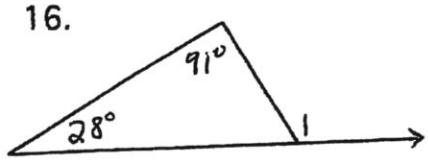
11._____

12._____

13._____

14. 

15. 

16. 

14._____

15._____

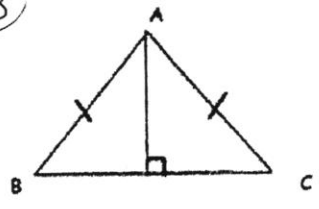
16._____

17. List all 6 pairs of congruent parts if $\Delta ABC \cong \Delta RKW$.

$\angle A \cong$	$\overline{AB} \cong$
$\angle B \cong$	$\overline{AC} \cong$
$\angle C \cong$	$\overline{BC} \cong$
Angles	Sides

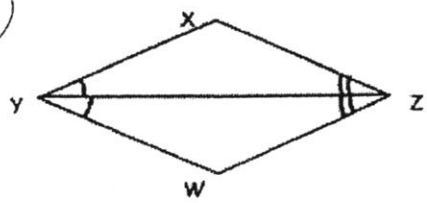
These two triangles are congruent by: (circle one).

(18)



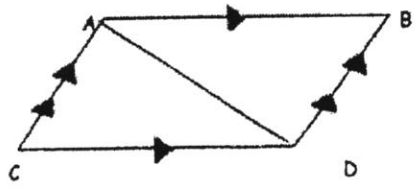
SSS
SAS
ASA
AAS
HL

(19)



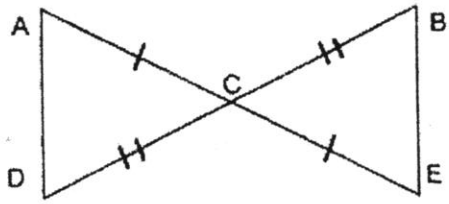
SSS
SAS
ASA
AAS
HL

(20)



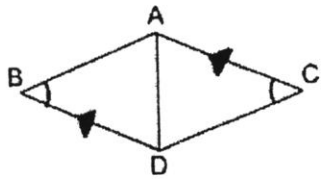
SSS
SAS
ASA
AAS
HL

(21)



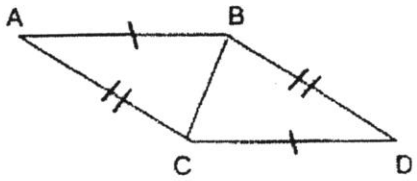
SSS
SAS
ASA
AAS
HL

(22)



SSS
SAS
ASA
AAS
HL

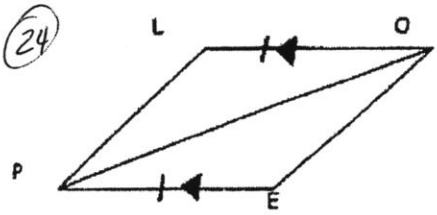
(23)



SSS
SAS
ASA
AAS
HL

For following: What postulate (SSS, SAS, ASA or AAS) proves that the triangles are congruent? State the congruence statement identifying the congruent triangles.

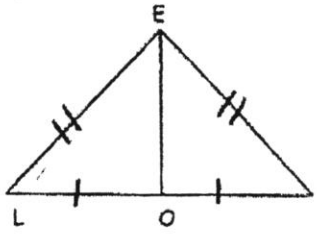
(24)



SSS
SAS
ASA
AAS

Δ _____ = Δ _____

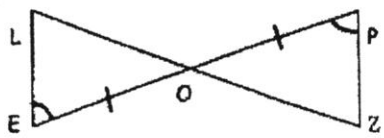
(25)



SSS
SAS
ASA
AAS

Δ _____ = Δ _____

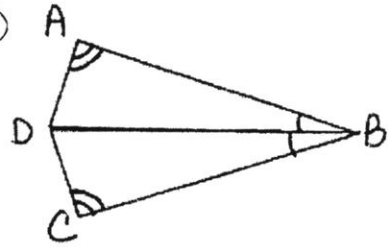
(26)



SSS
SAS
ASA
AAS

Δ _____ = Δ _____

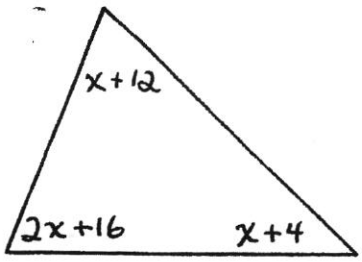
(27)



SSS
SAS
ASA
AAS

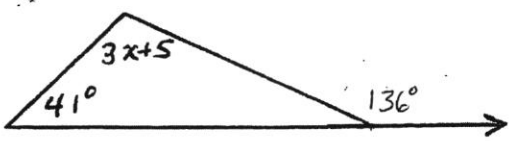
Δ _____ = Δ _____

(28)



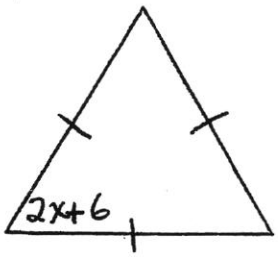
$x=$_____

(29)

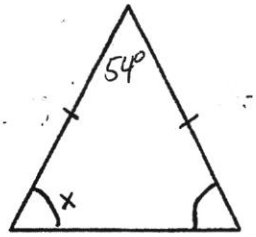


$x=$_____

(30)

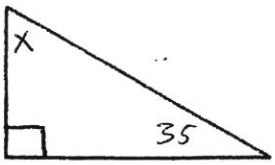


(31)



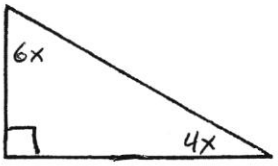
(32)

$x=$_____



(33)

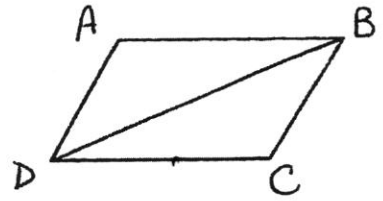
$x=$_____



(34)

Given: $\overline{AB} \cong \overline{CD}$
$\overline{AD} \cong \overline{CB}$

Prove: $\Delta ABD \cong \Delta CDB$

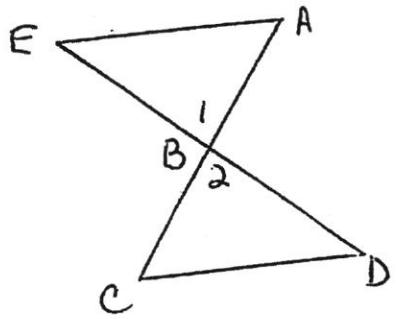


	Statements	Reasons
1.	$\overline{AB} \cong \overline{CD}$	1. _____
2.	_____	2. Given
3.	_____	3. Reflexive
4.	_____	4. _____

(35)

Given: B is the midpoint of $\overline{AC}$
B is the midpoint of $\overline{ED}$

Prove: $\Delta ABE \cong \Delta CBD$

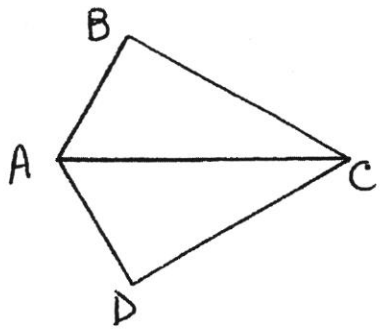


	Statements	Reasons
1.	_____	1. Given
2.	$\overline{AB} \cong \overline{CB}$	2. _____
3.	B is the midpoint of $\overline{ED}$	3. _____
4.	_____	4. Def. of midpoint
5.	_____	5. Vertical $\angle s$ $\cong$.
6.	_____	6. _____

(36)

Given: $\angle B$ and $\angle D$ are right angles
$\overline{BC} \cong \overline{DC}$

Prove: $\Delta ABC \cong \Delta ADC$



	Statements	Reasons
1.	_____	1. Given
2.	ΔABC and ΔADC are right triangles.	2. _____
3.	$\overline{AC} \cong \overline{AC}$	3. _____
4.	$\overline{BC} \cong \overline{DC}$	4. _____
5.	_____	5. _____

Geometry
CH 4 Review

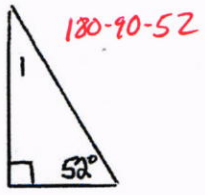
NAME _____
Period____

+ Included

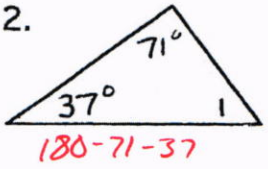
A. acute Δ
B. base
C. base angles
~~D. centroid~~
~~E. corollary~~
F. equiangular Δ
G. equilateral Δ
H. hypotenuse
I. isosceles Δ
J. legs
~~K. median~~
L. obtuse Δ
M. right Δ
N. scalene Δ
O. triangle

1. The longest side of a right triangle — 1. H
2. A triangle with no congruent sides — 2. N
3. The congruent angles of an isosceles triangle — 3. C
4. A triangle with 3 acute angles — 4. A
5. A figure formed by 3 segments joining 3 noncollinear points — 5. O
6. A statement that can be proved easily from a theorem — 6. E
7. The point of intersection of the medians of a triangle — 7. D
8. A triangle with a 35° and a 55° angle other angle: 90° — 8. M
9. A triangle with 3 congruent angles — 9. F
10. The two sides of a right triangle that form the right angle — 10. J

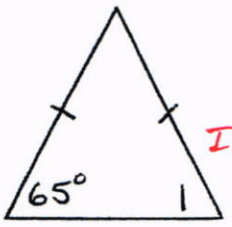
For 11-16, find $m\angle 1$.

11. 

180-90-52

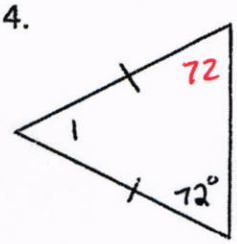
12. 

180-71-37

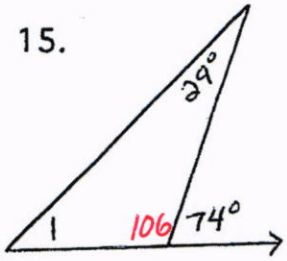
13. 

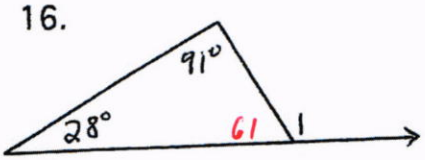
Isosceles

11. 38°
12. 72°
13. 65°

14. 

180-72-72

15. 

16. 

14. 36°
15. 45°
16. 119°

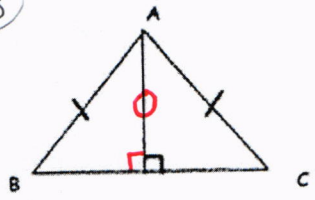
17. List all 6 pairs of congruent parts if $\Delta ABC \cong \Delta RKW$.

$\angle A \cong \angle R$ — $\overline{AB} \cong \overline{RK}$
$\angle B \cong \angle K$ — $\overline{AC} \cong \overline{RW}$
$\angle C \cong \angle W$ — $\overline{BC} \cong \overline{KW}$

Angles | Sides

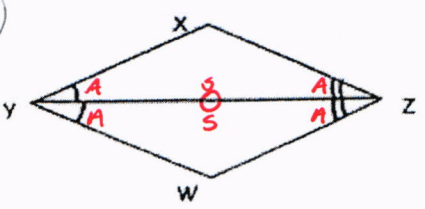
These two triangles are congruent by: (circle one).

18



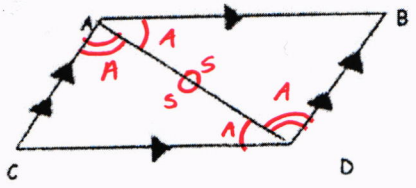
SSS
SAS
ASA
AAS
HL

19



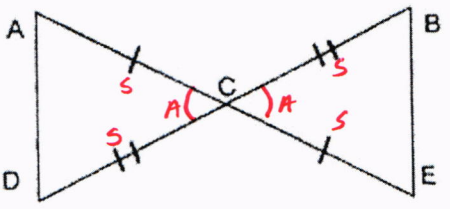
SSS
SAS
ASA
AAS
HL

20



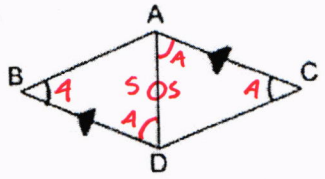
SSS
SAS
ASA
AAS
HL

21



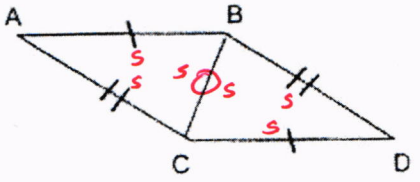
SSS
SAS
ASA
AAS
HL

22



SSS
SAS
ASA
AAS
HL

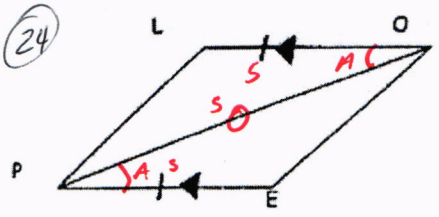
23



SSS
SAS
ASA
AAS
HL

For following: What postulate (SSS, SAS, ASA or AAS) proves that the triangles are congruent? State the congruence statement identifying the congruent triangles.

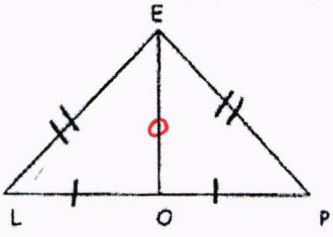
24



SSS
SAS
ASA
AAS

Δ PLO = Δ OEP

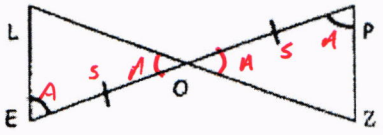
25



SSS
SAS
ASA
AAS

Δ ELO = Δ EPO

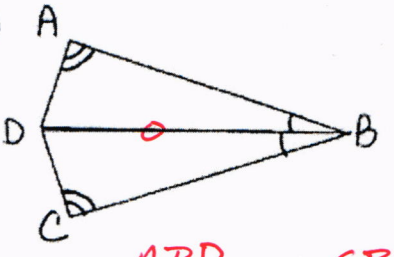
26



SSS
SAS
ASA
AAS

Δ ELO = Δ PZO

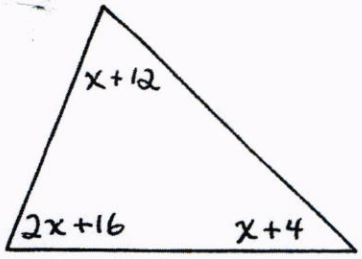
27



SSS
SAS
ASA
AAS

Δ ABD = Δ CBD

28



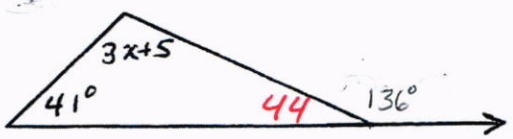
$x+12+2x+16+x+4=180$

$4x+32=180$

$4x=148$

$x=37$

29

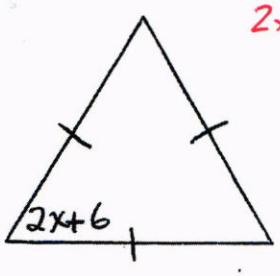


$41+3x+5+44=180$ or $41+3x+5=136$

$3x=90$

$x=30$

30

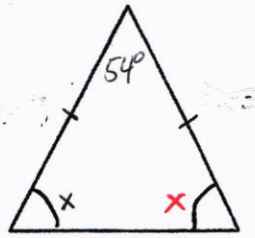


$2x+6+2x+6+2x+6=180$

OR

$2x+6=60$

31

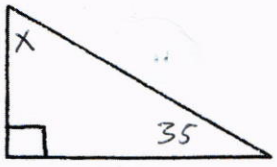


$54+x+x=180$

$2x+54=180$

$x=27$

32

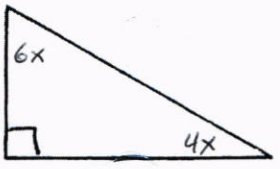


$x+35+90=180$

$x=55$

$x=63$

33



$6x+4x+90=180$

$10x+90=180$

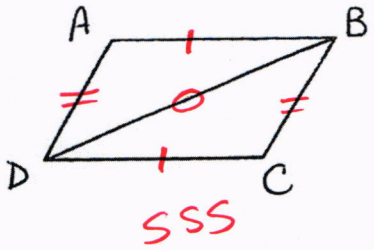
$10x=90$

$x=9$

(34)

Given: $\overline{AB} \cong \overline{CD}$
$\overline{AD} \cong \overline{CB}$

Prove: $\Delta ABD \cong \Delta CDB$



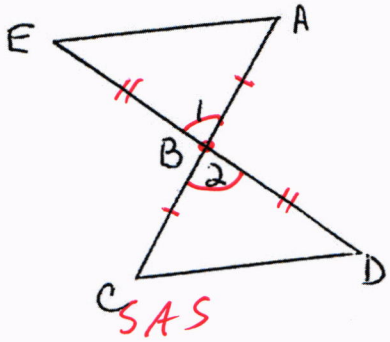
SSS

	Statements	Reasons
1.	$\overline{AB} \cong \overline{CD}$	1. Given
2.	$\overline{AD} \cong \overline{CB}$	2. Given
3.	$\overline{BD} \cong \overline{BD}$	3. Reflexive
4.	$\Delta ABD \cong \Delta CDB$	4. SSS

(35)

Given: B is the midpoint of $\overline{AC}$
B is the midpoint of $\overline{ED}$

Prove: $\Delta ABE \cong \Delta CBD$



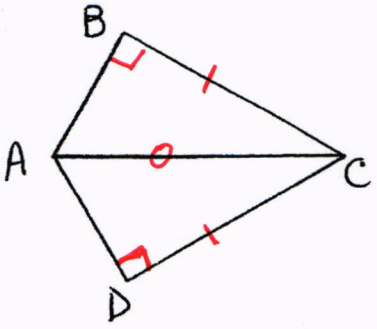
SAS

	Statements	Reasons
1.	B is midpt AC	1. Given
2.	$\overline{AB} \cong \overline{CB}$	2. Def. midpoint
3.	B is the midpoint of $\overline{ED}$	3. Given
4.	$\overline{EB} \cong \overline{DB}$	4. Def. of midpoint
5.	$\angle 1 \cong \angle 2$	5. Vertical $\angle s$ $\cong$.
6.	$\Delta ABE \cong \Delta CBD$	6. SAS

(36)

Given: $\angle B$ and $\angle D$ are right angles
$\overline{BC} \cong \overline{DC}$

Prove: $\Delta ABC \cong \Delta ADC$



H-L

	Statements	Reasons
1.	$\angle B$, $\angle D$ are rt angles	1. Given
2.	ΔABC and ΔADC are right triangles.	2. def. rt. triangle
3.	$\overline{AC} \cong \overline{AC}$	3. Reflexive
4.	$\overline{BC} \cong \overline{DC}$	4. Given
5.	$\Delta ABC \cong \Delta ADC$	5. H-L