Unit 6
Test Review

Test Review

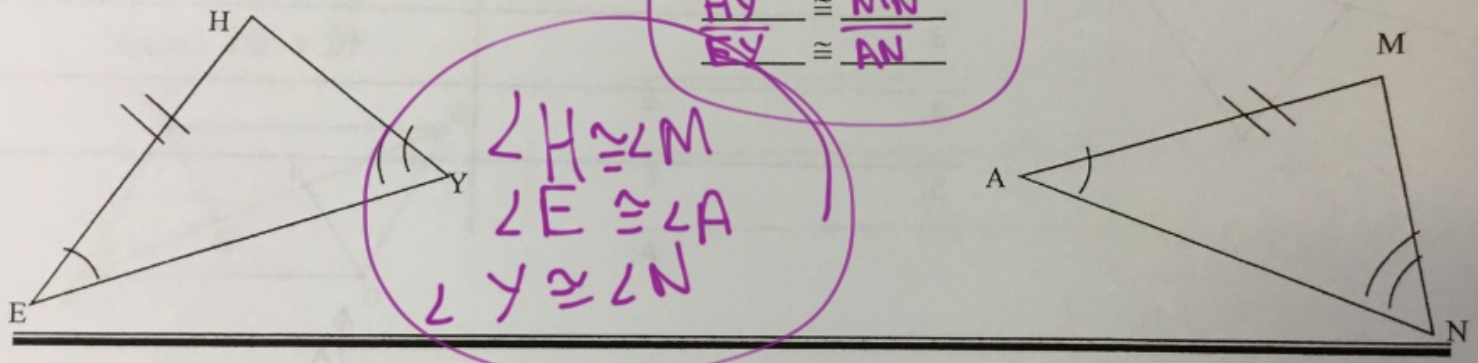
1: ΔHEY is congruent to ΔMAN by AAS.

What **other** parts of the triangles are congruent **by CPCTC**?

$\overline{EH} \cong \overline{AM}$

$\overline{HY} \cong \overline{MN}$

$\overline{EY} \cong \overline{AN}$

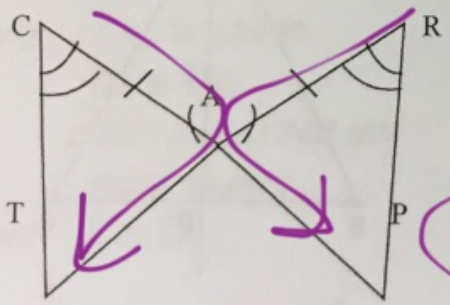


$\angle H \cong \angle M$

$\angle E \cong \angle A$

$\angle Y \cong \angle N$

2:



ΔCAT ≅ DRAP, by ASA

THEREFORE:

_____ ≅ _____, by CPCTC

_____ ≅ _____, by CPCTC

_____ ≅ _____, by CPCTC

all sides + all 2s

$\overline{CT} \cong \overline{RP}$

$\overline{TA} \cong \overline{PA}$

$\overline{CA} \cong \overline{RA}$

$\angle C \cong \angle R$

$\angle T \cong \angle P$

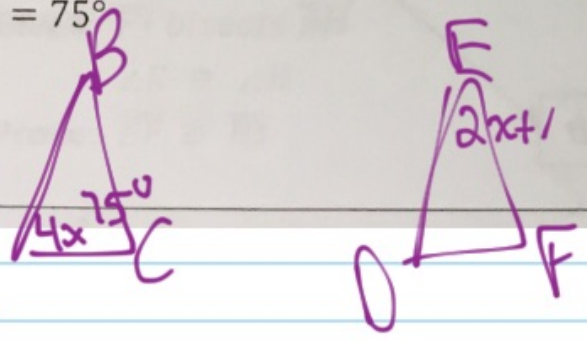
$\angle CAT \cong \angle RAP$

➢ Solve each of the following sets of Congruent Triangles for the variables indicated

3. $\Delta ABC \cong \Delta DEF$ $x =$ _____

$\angle A = (4x)^\circ$ $\angle E = (2x+1)^\circ$

$\angle C = 75^\circ$



$4x+75+2x+1=180$

$6x+76=180$

$-76 \quad -76$

$\frac{6x}{6} = \frac{104}{6}$

17.3

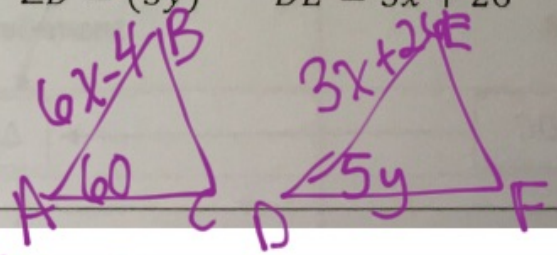
$52\frac{3}{5}$

4. $\Delta ABC \cong \Delta DEF$ $x =$ _____

$y =$ _____

$\angle A = 60^\circ$ $\overline{AB} = 6x-4$

$\angle D = (5y)^\circ$ $\overline{DE} = 3x+26$



$6x-4=3x+26$

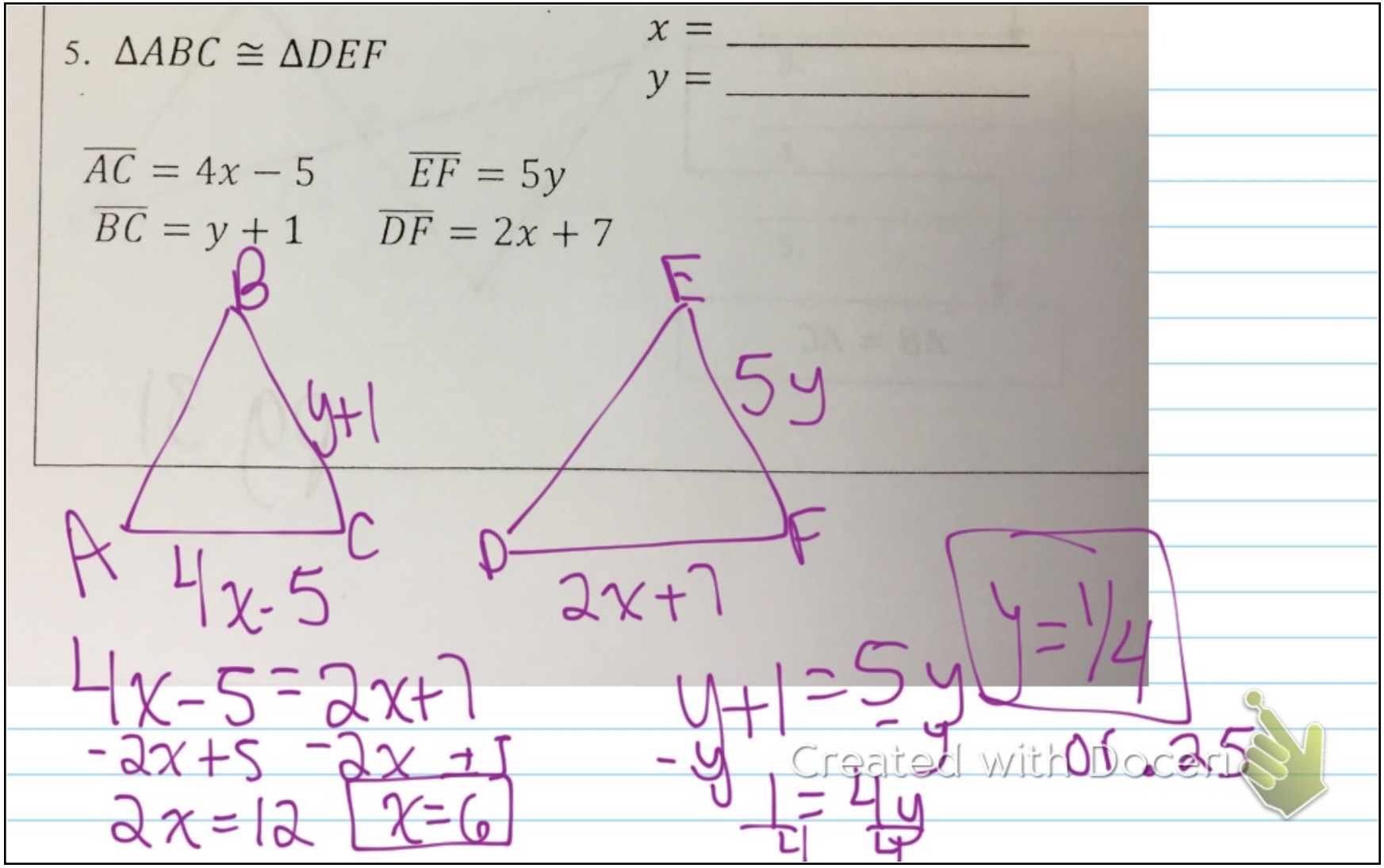
$-3x+4 \quad -3x+4$

$\frac{3x}{3} = \frac{30}{3}$

$x=10$

$\frac{60}{5} = \frac{5y}{5}$

$12=y$


5. $\Delta ABC \cong \Delta DEF$
$x =$ _____
$y =$ _____
$\overline{AC} = 4x - 5$
$\overline{EF} = 5y$
$\overline{BC} = y + 1$
$\overline{DF} = 2x + 7$
B
y+1
A
4x-5
C
E
5y
D
2x+7
F
4x-5=2x+7
-2x+5 -2x+5
2x=12
x=6
y+1=5y
-y -y
1=4y
y=1/4
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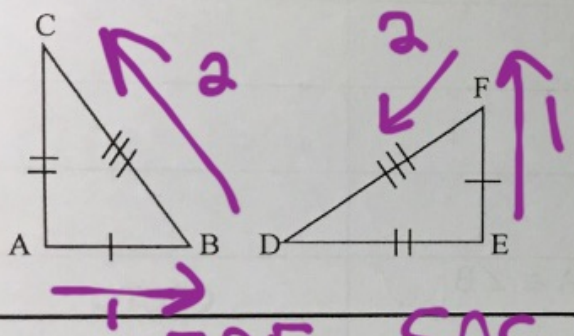
Unit 6 – Triangles and Congruence
Test Review

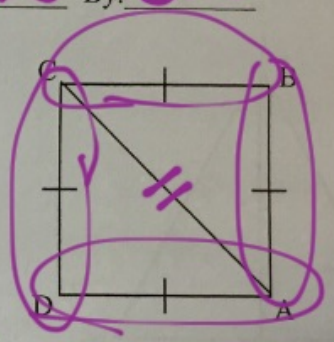
Name_____
Date_____ Pd____

- For each pair of triangles, name the reason for congruence. **(SSS, SAS, ASA, AAS, NONE)**
- Then name the correct congruent triangle. If the reason was NONE, leave the triangle answer blank.

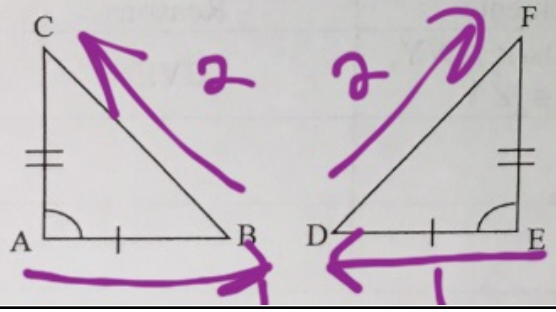
1. $\Delta ABC \cong \Delta$ EFD By: SSS



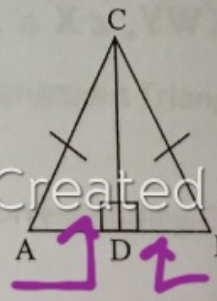
2. $\Delta ABC \cong \Delta$ ADC By: SSS



3. $\Delta ABC \cong \Delta$ EDF By: SAS

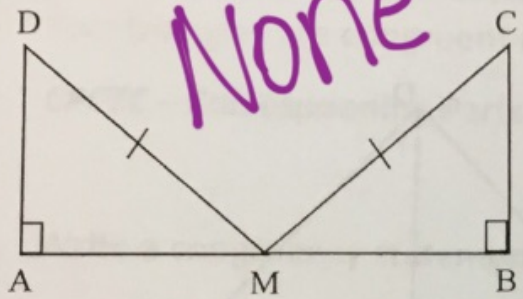


4. $\Delta ADC \cong \Delta$ BDC By: HL

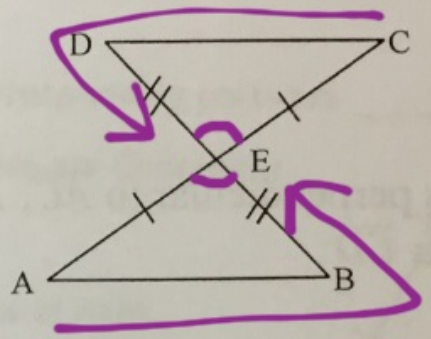


5. $\Delta MAD \cong \Delta$_____ By:_____

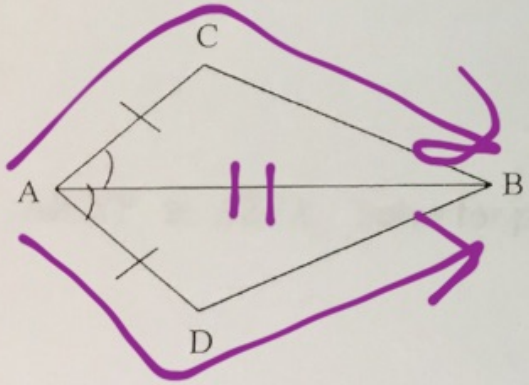
None



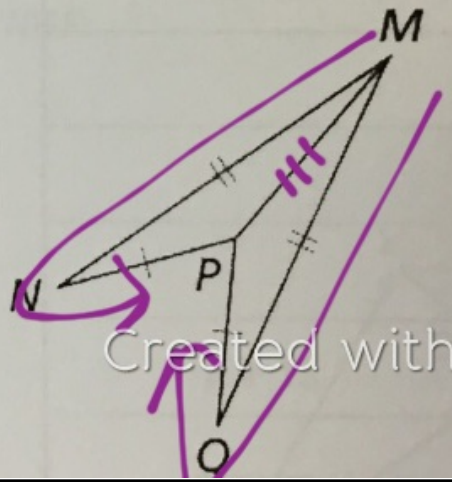
6. $\Delta ABE \cong \Delta$ CDE By: SAS



7. $\Delta ACB \cong \Delta$ ADB By: SAS



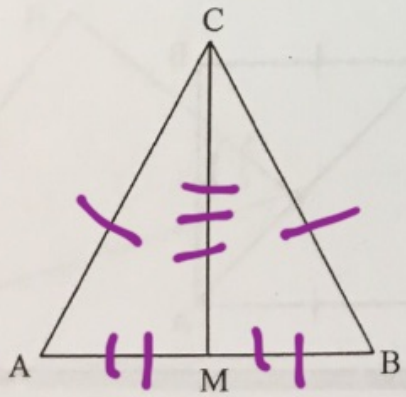
8. $\Delta MNP \cong \Delta$ MQP By: SSS



Unit 6 –Triangles & Congruence
TEST REVIEW

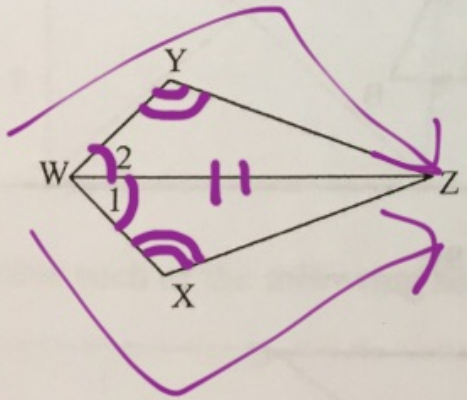
Date_____ **Pd**__

1. Given: $\overline{AC} \cong \overline{BC}$, M is the midpoint of $\overline{AB}$
   Prove: $\angle A \cong \angle B$



Statements	Reasons
$\overline{AC} \cong \overline{BC}$, M is the midpoint of $\overline{AB}$	GIVEN
$\overline{AM} \cong \overline{MB}$	Def of midpoint
$\overline{CM} \cong \overline{CM}$	Reflexive Prop $\cong$
$\triangle AMC \cong \triangle BMC$	SSS
$\angle A \cong \angle B$	CPCTC

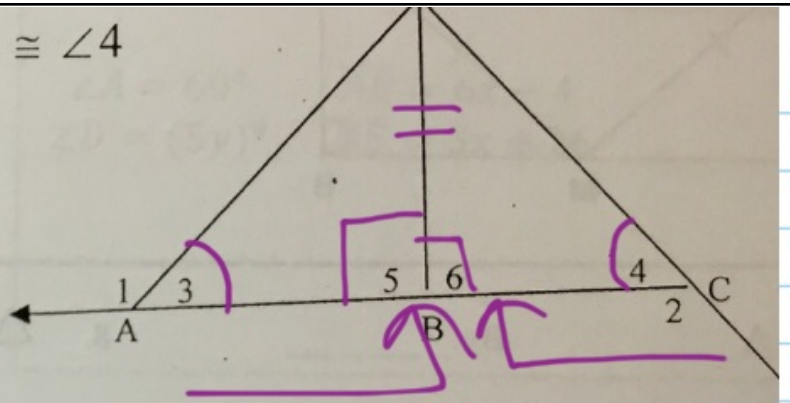
2. Given: $\overline{WZ}$ bisects $\angle XWY$, $\angle X \cong \angle Y$
   Prove: $\overline{WY} \cong \overline{WX}$



Statements	Reasons
$\overline{WZ}$ bisects $\angle XWY$, $\angle X \cong \angle Y$	GIVEN
$\angle 1 \cong \angle 2$	Def of $\angle$ Bisects
$\overline{WZ} \cong \overline{WZ}$	Reflexive Prop of $\cong$
$\triangle WYZ \cong \triangle WXZ$	AAS
$\overline{WY} \cong \overline{WX}$	CPCTC

D

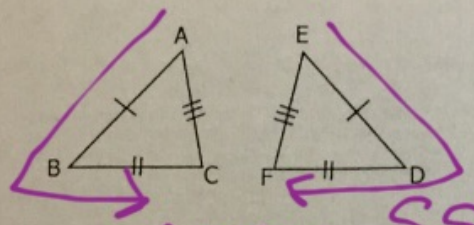
3. Given: $\overline{DB}$ is perpendicular to $\overline{AC}$, $\angle 3 \cong \angle 4$
Prove: $\overline{AD} \cong \overline{CD}$



Statements	Reasons
$\overline{DB}$ is perpendicular to $\overline{AC}$, $\angle 3 \cong \angle 4$	GIVEN
$\angle 5 + \angle 6$ 90°	Def of Perpendicular lines
$\angle 5 \cong \angle 6$	Right ∠'s ≅ Theorem
$\overline{DB} \cong \overline{DB}$	Reflexive Prop of ≅
$\triangle ABD \cong \triangle CBD$	AAS
$\overline{AD} \cong \overline{CD}$	CPCTC

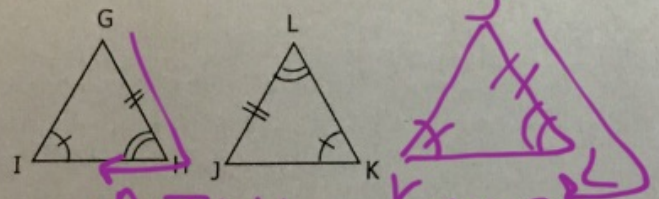
Name the congruence test and then complete the congruence statement.

1.



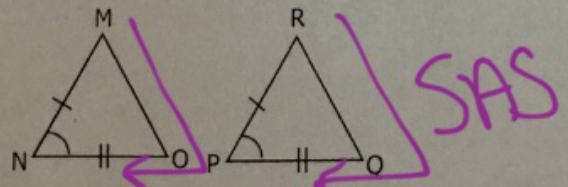
$\Delta ABC \cong$ ΔEDF SSS

2.



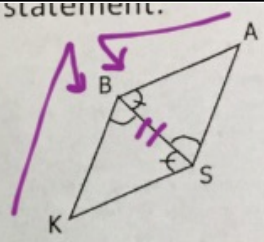
$\Delta GHI \cong$ ΔJLK AAS

3.



$\Delta MON \cong$ ΔRQP SAS

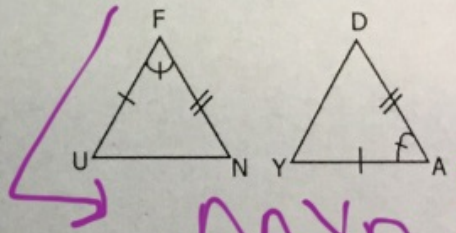
7.



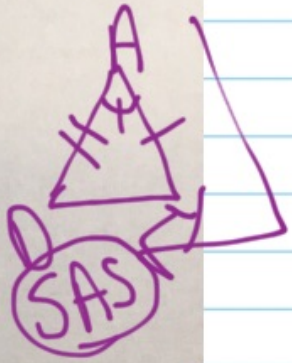
ASA

$\Delta ABS \cong$ ΔKBS

8.



$\Delta FUN \cong$ ΔAYD



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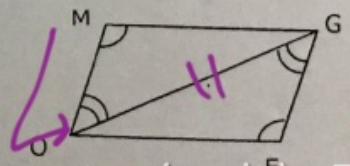
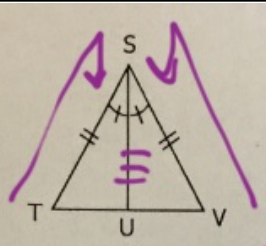


AAS

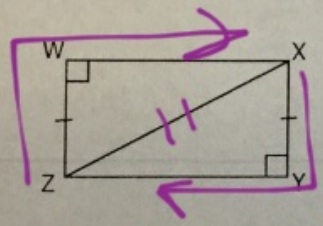
$\Delta MOG \cong$ ΔFGO

4.



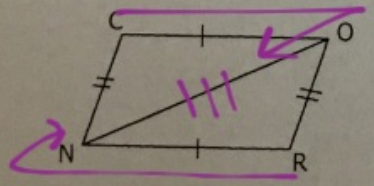
$\Delta TSU \cong$ ΔVSU SAS

5.



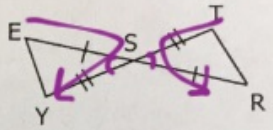
$\Delta XYZ \cong$ ΔZWX HL

6.



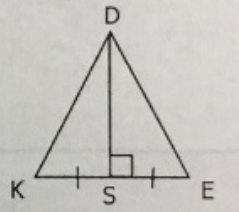
$\Delta CON \cong$ ΔRNO SSS

10.



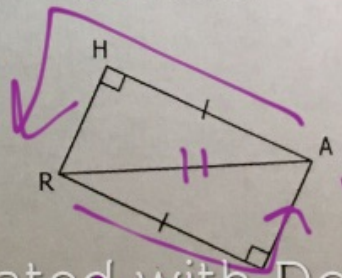
$\Delta ESY \cong$ ΔTSR SAS

11.



$\Delta KSD \cong$ Δ

12.



$\Delta AHR \cong$ ΔRIA HL