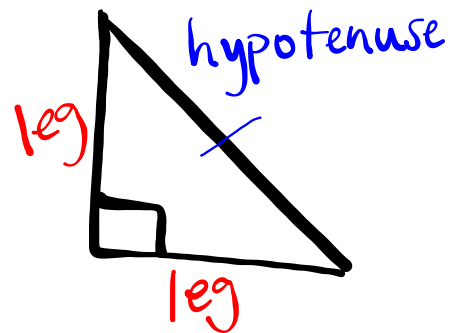# Triangle Congruence Theorems

SSS (side-side-side)
SAS (side-angle-side)
ASA (angle-side-angle)
AAS (angle-angle-side)
HL (hypotenuse-leg)
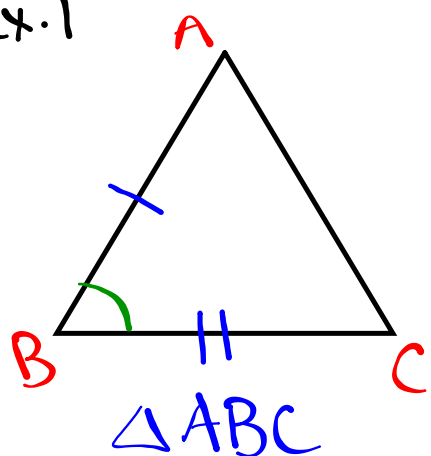
leg   hypotenuse

leg

~~NOT~~ Theorems
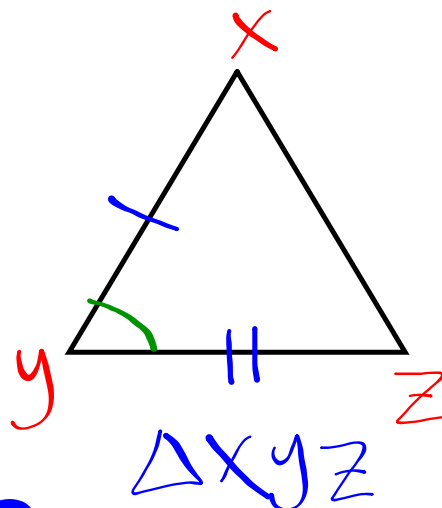
ASS (angle-side-side)
AAA (angle-angle-angle)

☆ Don't
Skip a side
and an angle

ex. 1

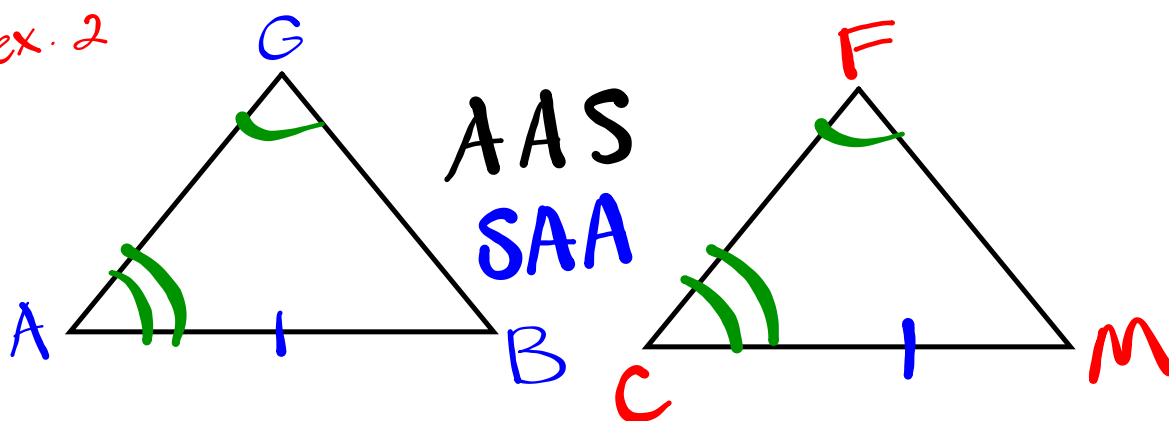$\triangle ABC \cong \triangle XYZ$
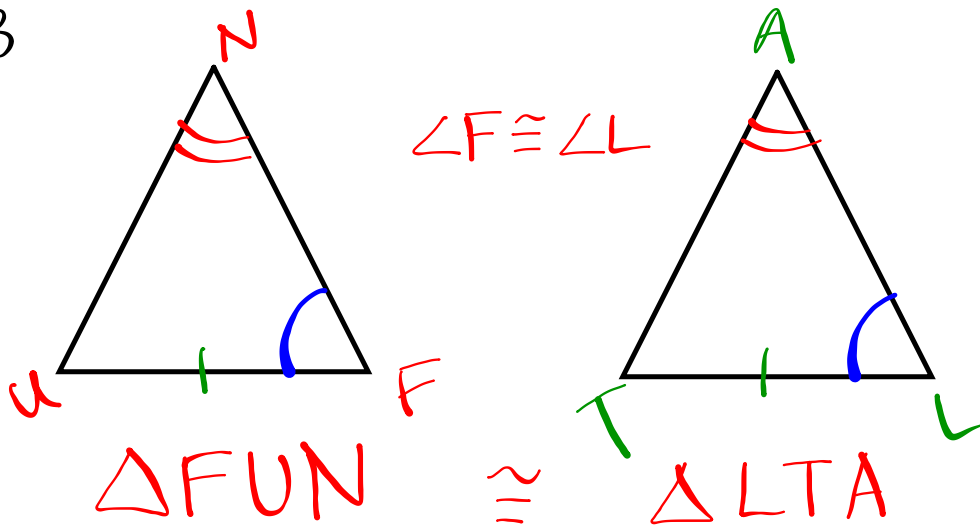
SAS

ex. 2

AAS

SAA

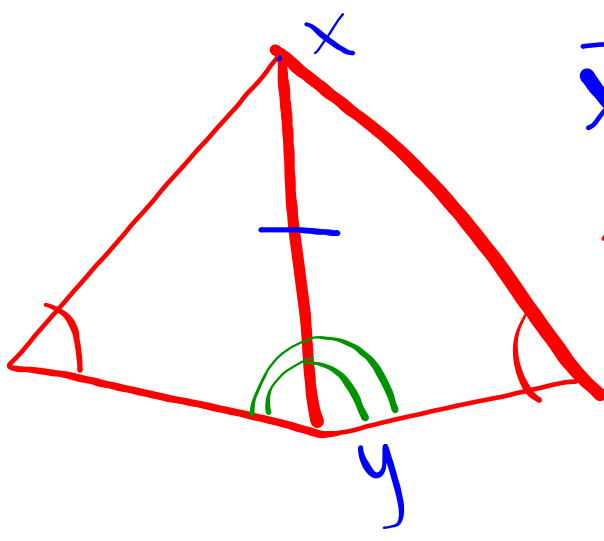$\triangle GBA \cong \triangle FMC$

ex · 3

$\angle F \cong \angle L$

$\triangle FUN \cong \triangle LTA$

ASA $\angle U \cong \angle T, \overline{UF} \cong \overline{TL}$

SAS $\overline{UF} \cong \overline{TL}, \overline{FN} \cong \overline{LA}$

AAS $\overline{UF} \cong \overline{TL}, \angle N \cong \angle A$
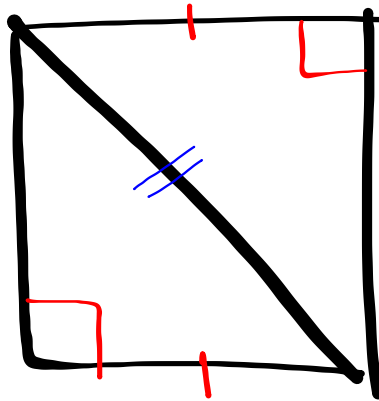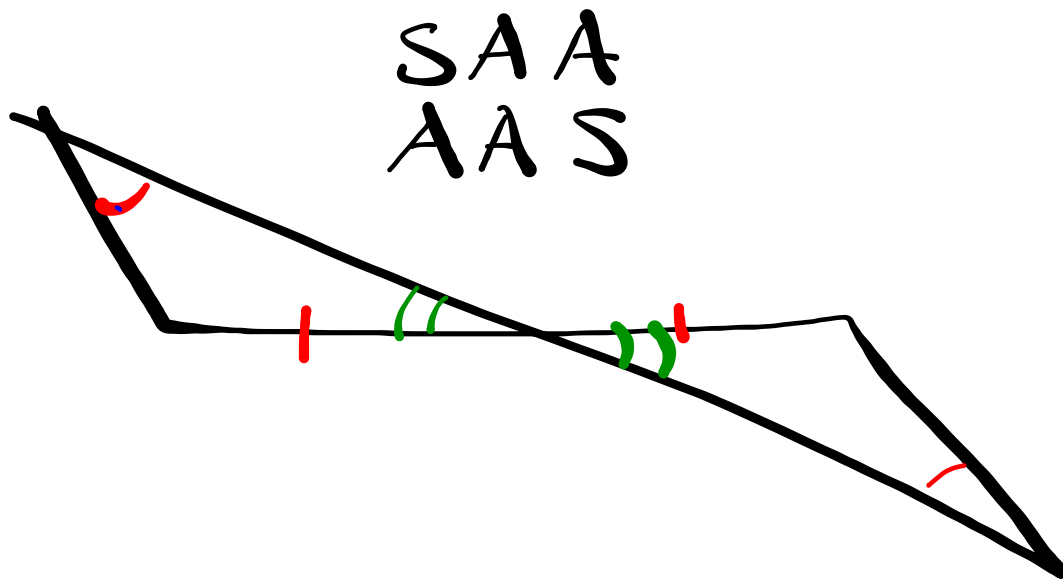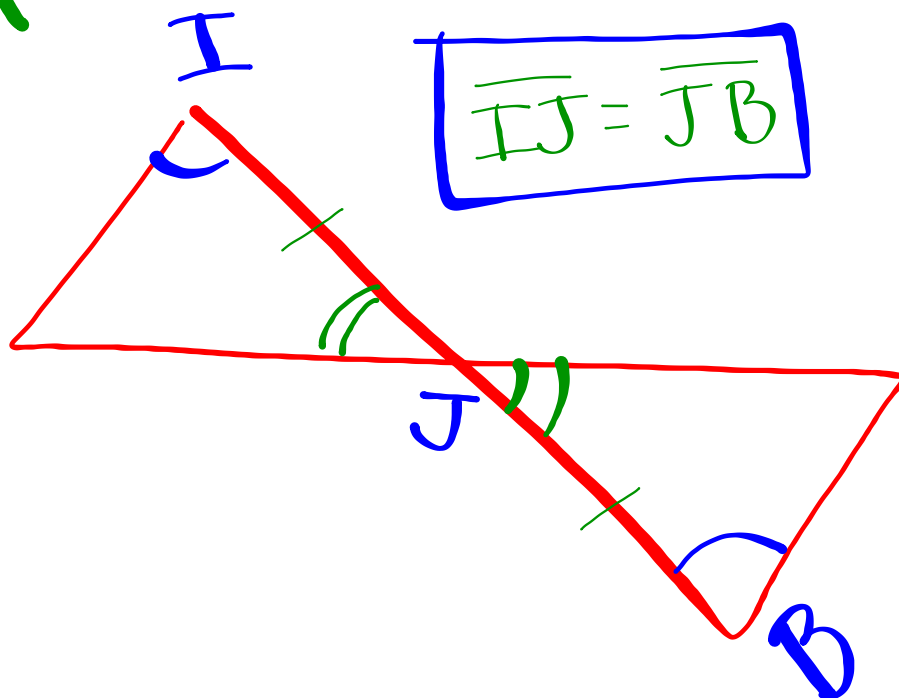
1.

$$\overline{xy} \cong \overline{xy}$$

AAS

2.

HL

SAA
AAS

11. ASA

I

$$\overline{IJ} = \overline{JB}$$

J

B

1. AAS
2. HL
3. SAS
4. SAS
5. SAS
6. AAS
7. AAS
8. Not $\cong$
9. Not $\cong$
10. SAS

11. $\overline{IJ} \cong \overline{BJ}$
12. $\overline{CD} \cong \overline{HB}$
13. $\angle E \cong \angle R$
14. $\angle D \cong \angle U$
15. $\overline{CD} \cong \overline{XY}$
16. $\overline{SU} \cong \overline{KM}$
17. $\angle V \cong \angle J$
18. $\overline{YX} \cong \overline{LW}$
19. $\angle T \cong \angle F$
20. $\angle I \cong \angle A$