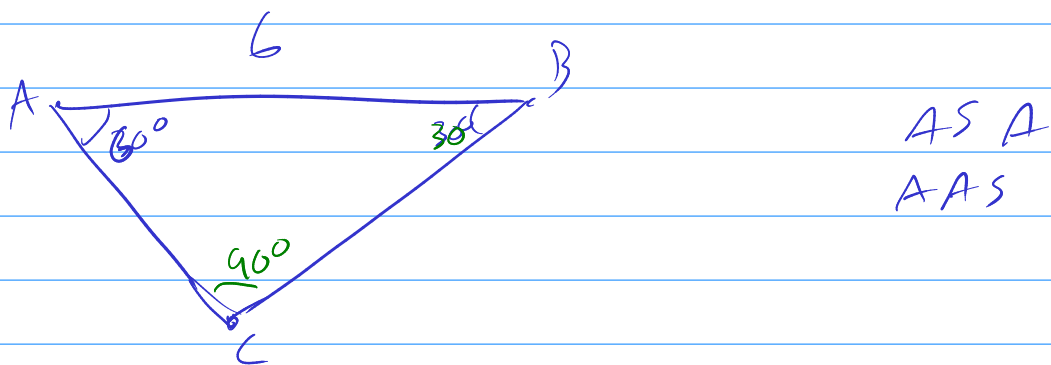
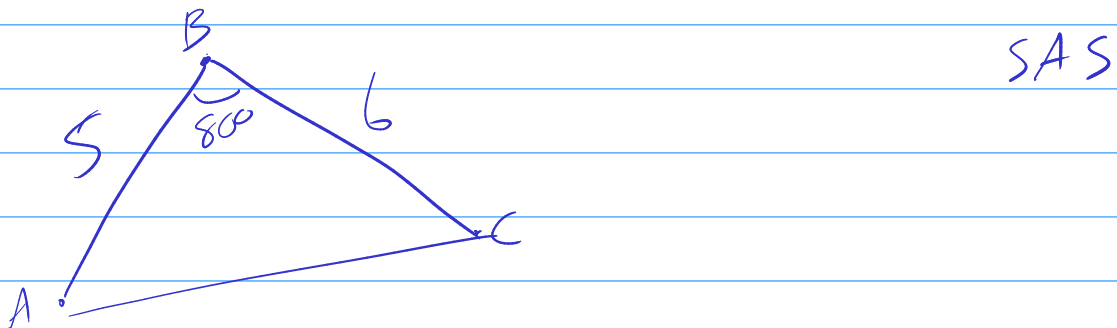
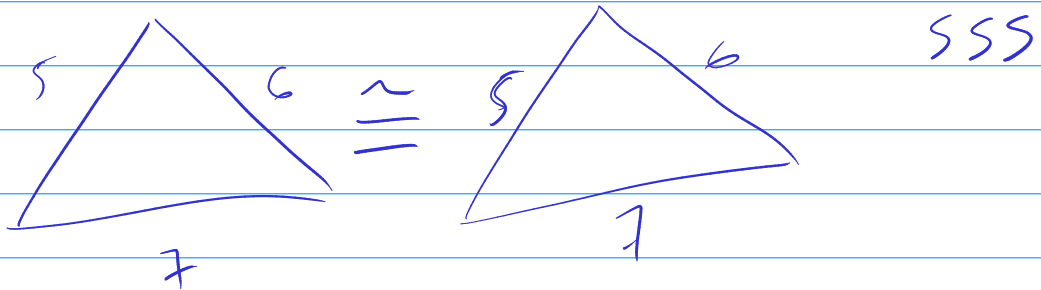
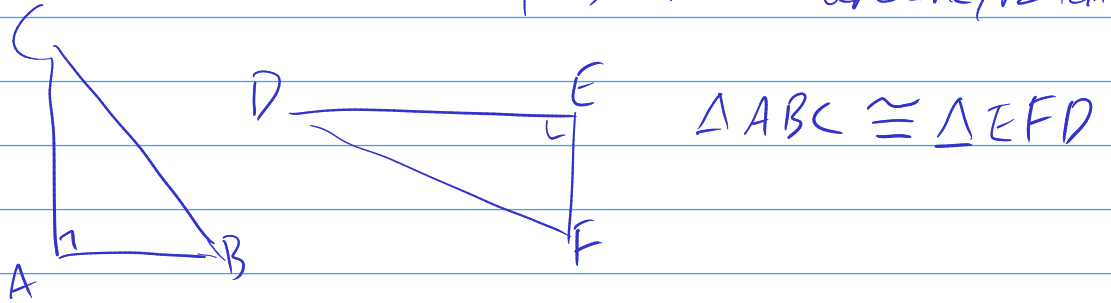
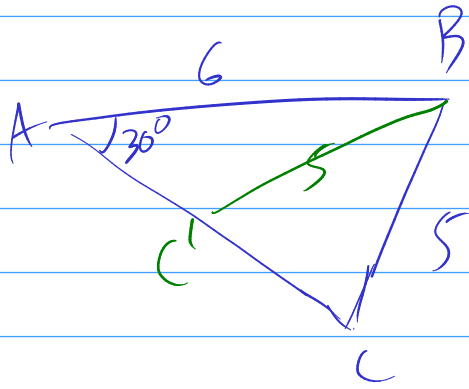


Triangles

Congruent triangles : two triangles are the same, just moved around/rotated

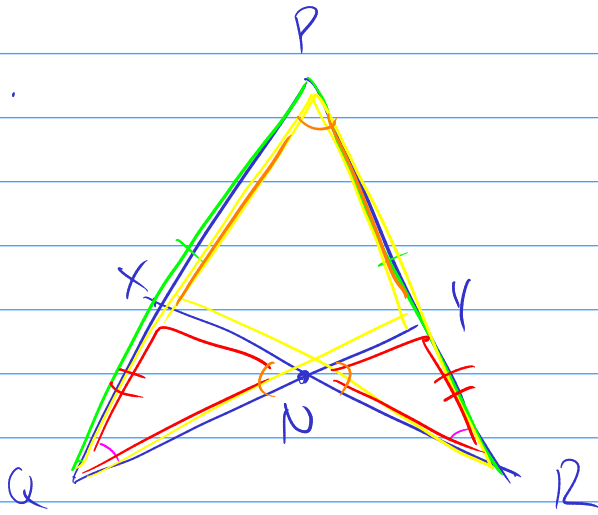




SSA

~~not
congruency~~

Ex.



show $QY = RX$

By ASA

$$\triangle PQY \cong \triangle PRX$$

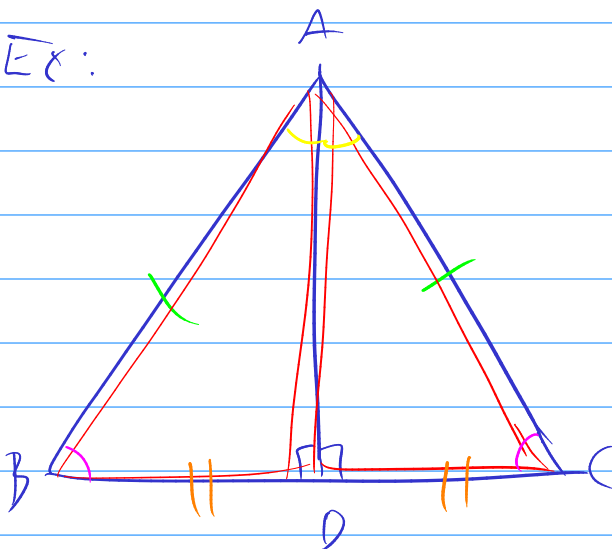
$$PQ = PR$$

$$\angle Y = \angle X$$

$$PY = PX$$

show $NX = NY$

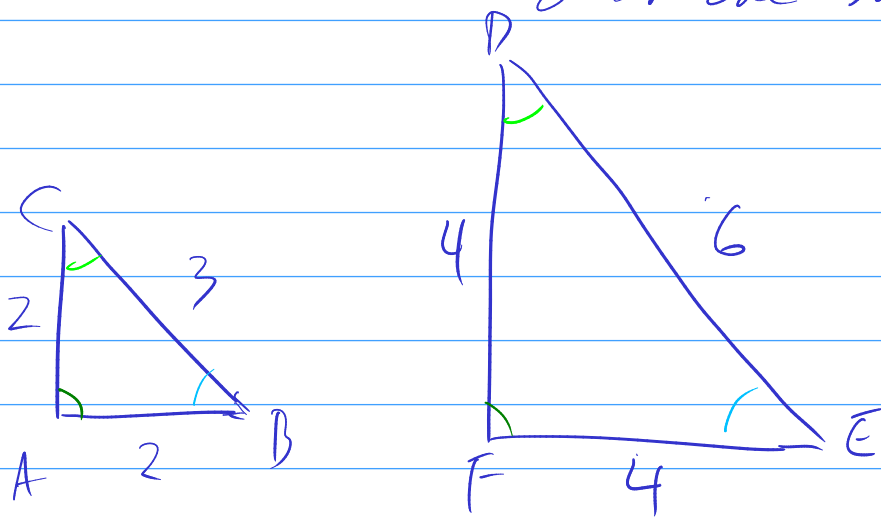
Ex:



$$\triangle QNX \cong \triangle RNY$$

$$\triangle ABC \cong \triangle ACD$$

Similar Triangles: one triangle is the other one but scaled up/down



$$\triangle ABC \sim \triangle FED$$

$$2 = \frac{FE}{AB} = \frac{ED}{BC} = \frac{DF}{CA}$$

SSS
SAS
AA

Right triangles

$$a^2 + b^2 = c^2$$

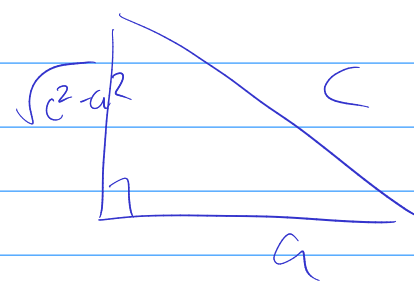
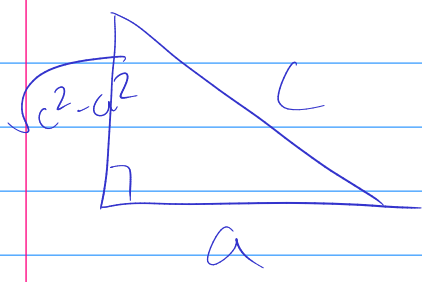
Pythagorean triples

3, 4, 5
6, 8, 10

5, 12, 13

8, 15, 17

7, 24, 25



HL congruence
↓
SSS