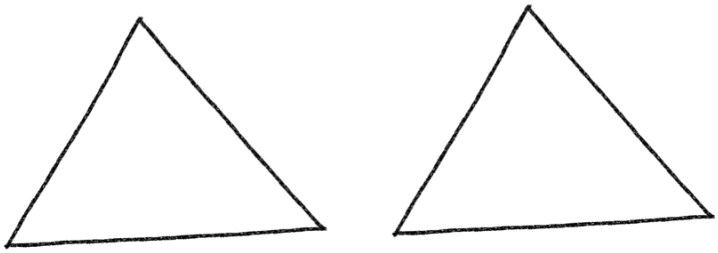
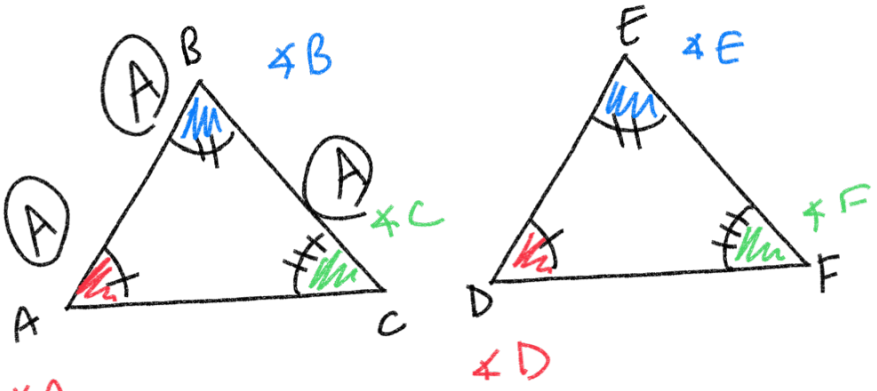
T-G Geometry Week 18 1/24



similar triangles

"proportional"
equal angles,
but <u>not</u> equal sides



$\angle A \cong \angle D$
$\angle B \cong \angle E$
$\angle C \cong \angle F$

$\triangle ABC$ $\triangle DEF$ Similar

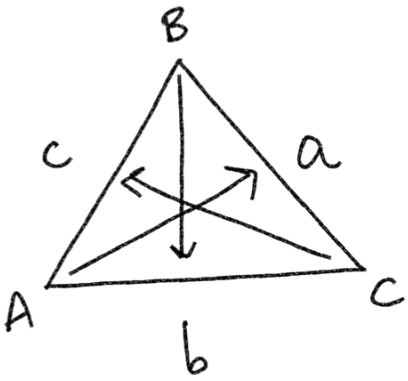
$\triangle ABC \not\cong \triangle DEF$

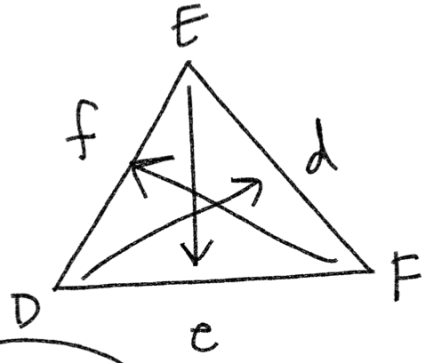
$\triangle ABC$ ~~$\triangle DEF$~~

similar, but not congruent

A = Angle
AAA is similarity, <u>not</u> congruency

1 You NEED AT <u>LEAST ONE SIDE</u> FOR TRIANGLE CONGRUENCY

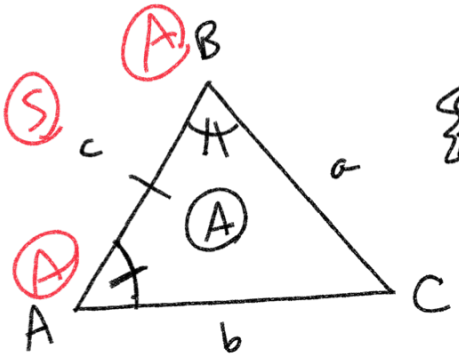




capitals for Angles
lowercase for sides

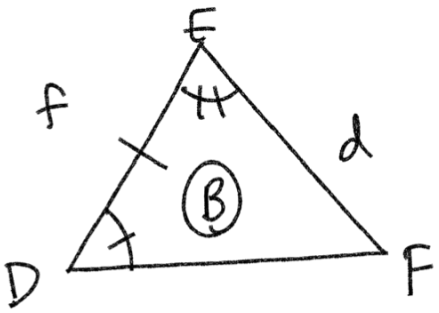
ASA
{AcB}

(2) YOU NEED



- Representative AT LEAST ONE from A, B, & C? LETTER FROM

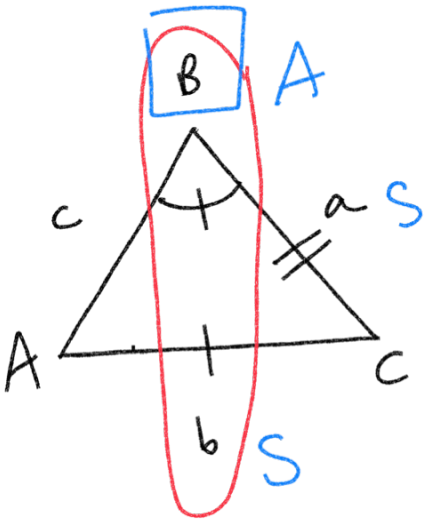
yes

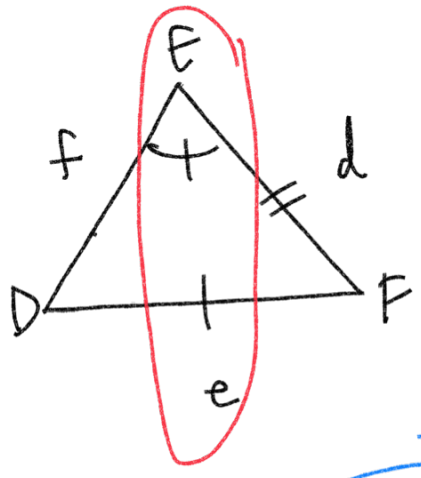


- Is at least one lowercase? EACH TO HAVE CONGRUENCY

yes

ASA congruency

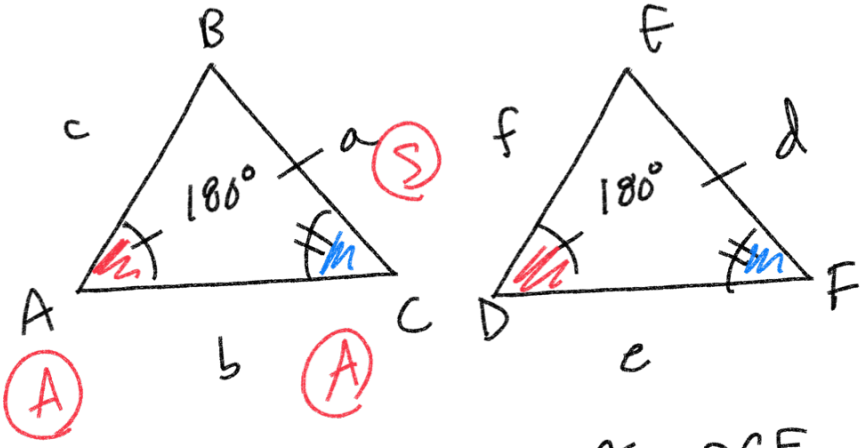




Bab

Not congruent

ASS

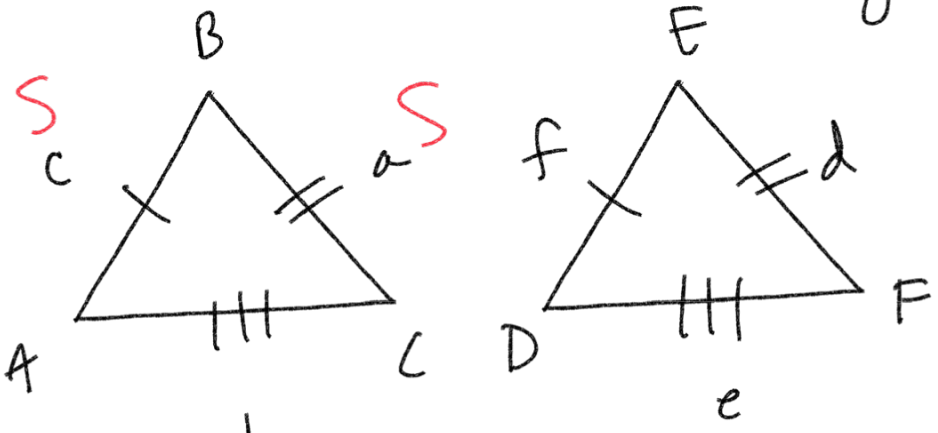


$A + B + C = 180°$

$D + E + F = 180°$

$\triangle ABC \cong \triangle DEF$ If you have 2 congruent angles, you actually have 3

A a C

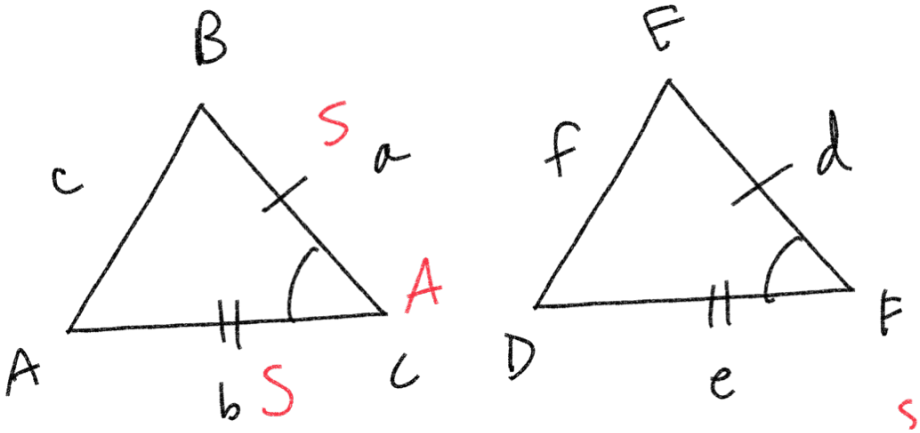


a b c

SSS congruency

$\triangle ABC \cong \triangle DEF$

$\triangle BCA \cong \triangle EFD$



SAS side-angle-side

a C b

$\triangle CAB \cong \triangle FDE$

Congruencies: SSS SAS ASA AAS

similarities: AAA

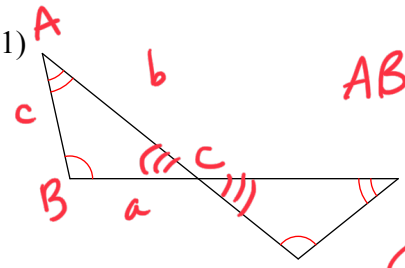
not an option

Geometry Name_____ ID: 1

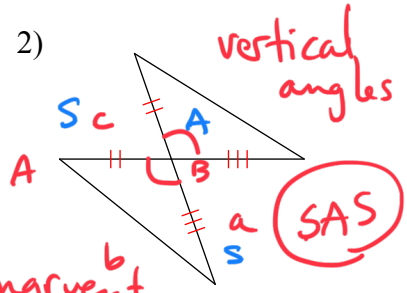
Assignment

Date_____ Period____

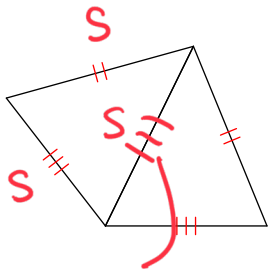
Determine if the two triangles are congruent. If they are, state how you know.

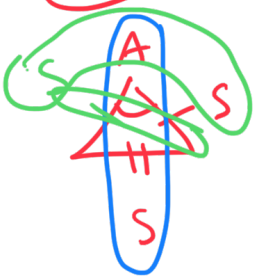
1) 

ABC
not congruent
AAA

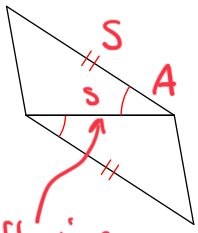
2) 

congruent

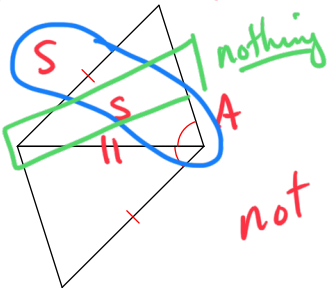
3) 



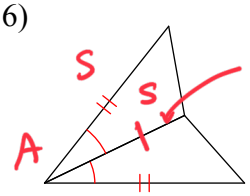
reflexive property
SSS congruency

4) 

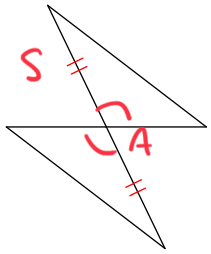
ca B
SAS
reflexive
congruent

5) 

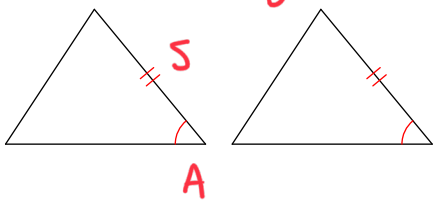
nothing
not congruent

6) 

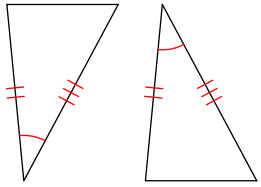
reflexive
SAS

7) 

not congruent
vertical angle

8) 

not congruent

9) 

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