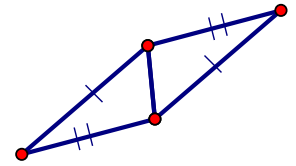
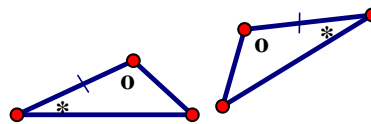
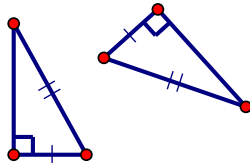
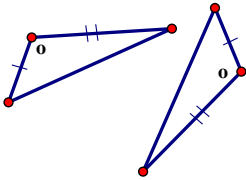


**Quick Concept:** Two triangles are congruent by SSS, SAS, ASA, AAS and HL. Look for items that are not provided in the given or the diagram for addition information about sides and angles. The typical missing items are a common side, a common angle, vertical angles or parallel lines that provide more angle info.

1) Are the following pairs of triangles congruent? If they are, then name their congruence criteria. (SSS, SAS, ASA, AAS, HL or NONE)

a) Yes / No \_\_\_\_\_      b) Yes / No \_\_\_\_\_      c) Yes / No \_\_\_\_\_      d) Yes / No \_\_\_\_\_



2) Are the following pairs of triangle congruent?

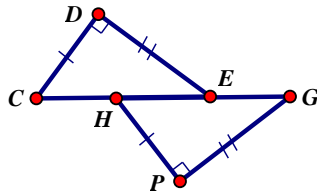
If YES, create a congruence statement and name the congruence criteria.

SSS, SAS, ASA, AAS, HL or  $AS_1S_2$  ( $S_2 > S_1$ )

a) Yes / No

$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_

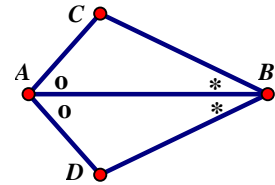
Criteria \_\_\_\_\_



b) Yes / No

$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_

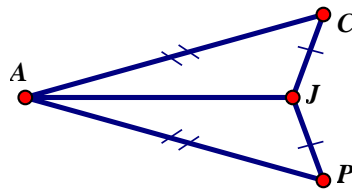
Criteria \_\_\_\_\_



c) Yes / No

$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_

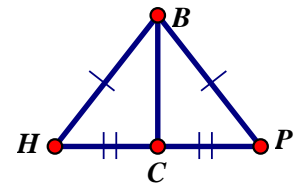
Criteria \_\_\_\_\_



d) Yes / No

$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_

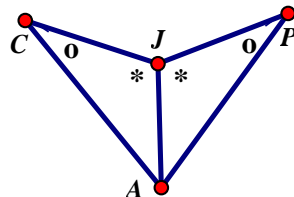
Criteria \_\_\_\_\_



e) Yes / No

$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_

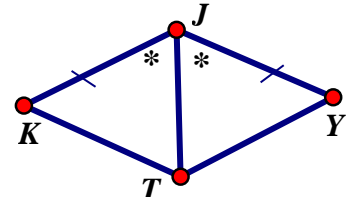
Criteria \_\_\_\_\_



f) Yes / No

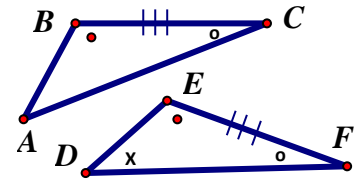
$\Delta$  \_\_\_\_\_  $\cong$   $\Delta$  \_\_\_\_\_

Criteria \_\_\_\_\_



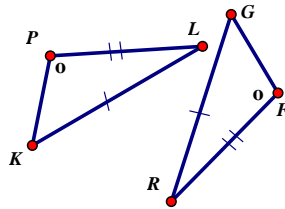


- 3) Jennifer states that  $\triangle ABC \cong \triangle DEF$  can be proven by either ASA or AAS. Joshua disagrees – he says it can only be done by ASA because in  $\triangle ABC$  it is missing the matching symbol to  $\angle D$  so we don't know if  $\angle A \cong \angle D$ . Who is correct? **Explain.**



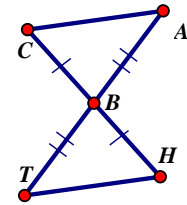
- 4) Are the following pairs of triangle congruent? If YES, create a congruence statement and name the congruence criteria. SSS, SAS, ASA, AAS, HL or  $AS_1S_2$  ( $S_2 > S_1$ )

a) Yes / No



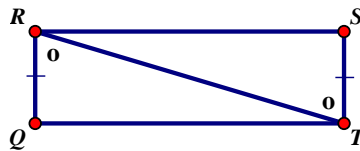
Criteria \_\_\_\_\_

b) Yes / No



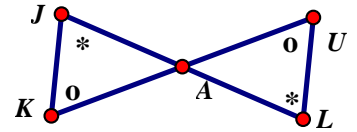
Criteria \_\_\_\_\_

c) Yes / No



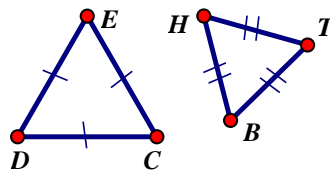
Criteria \_\_\_\_\_

d) Yes / No



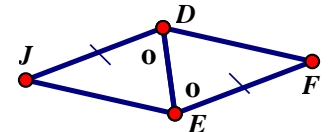
Criteria \_\_\_\_\_

e) Yes / No



Criteria \_\_\_\_\_

f) Yes / No

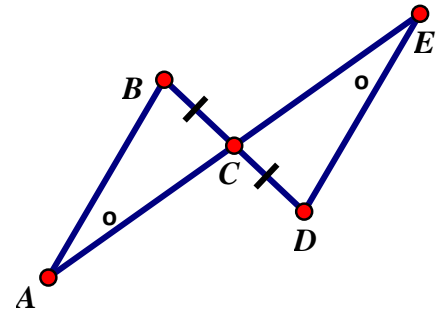


Criteria \_\_\_\_\_

- 5) Rita says that the following triangles are congruent by ASA. Is she correct?

YES or NO

Explain your answer.



- 6) Angela says that “if you know that two sides of a triangle are the same as two sides of another triangle, then the two triangles must be congruent.” Do you agree with her? Explain.