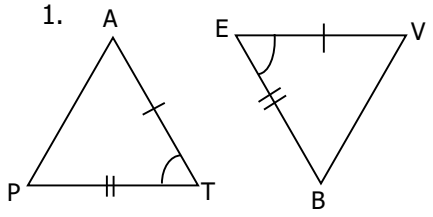
Geometry Name: _____

Proving Triangles Congruent: ASA, AAS, SAS, SSS Period: _____

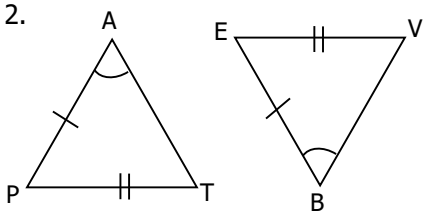
For each situation, Pat and Bev were given the same information to create a triangle. This is shown by the markings on each triangle. Determine if they were FORCED to create the SAME triangle (congruent triangles) or if the triangles are not necessarily identical. ***If they are congruent, list the triangle congruence theorem as well.***

1.



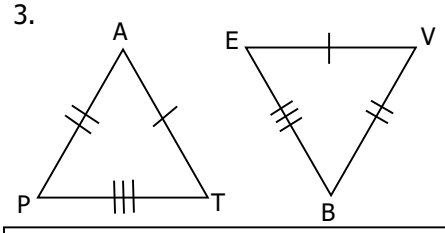
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

2.



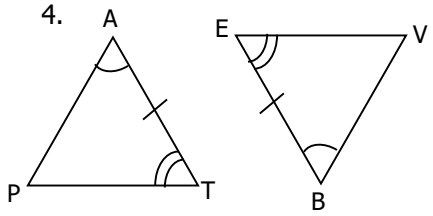
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

3.



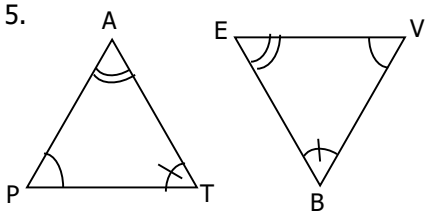
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

4.



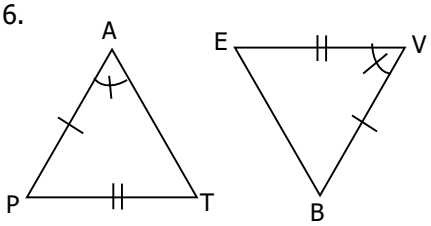
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

5.



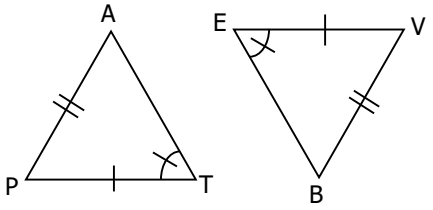
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

6.



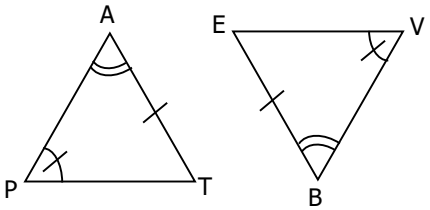
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

7.



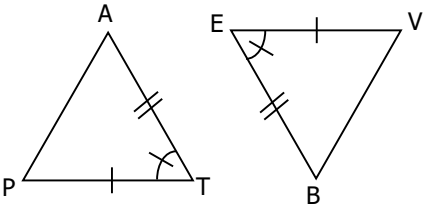
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

8.



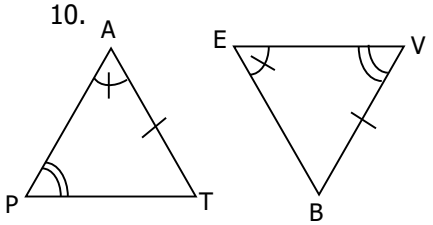
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

9.



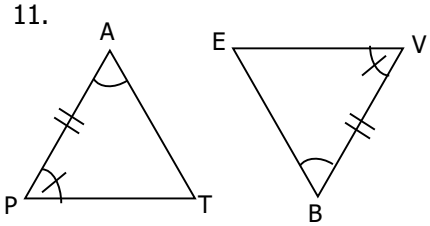
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

10.



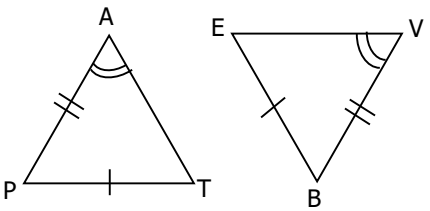
Triangles Congruent by _____
___Triangles Not Necessarily Congruent

11.



Triangles Congruent by _____
___Triangles Not Necessarily Congruent

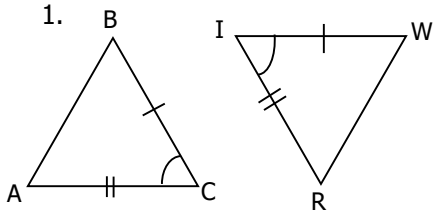
12.



Triangles Congruent by _____
___Triangles Not Necessarily Congruent

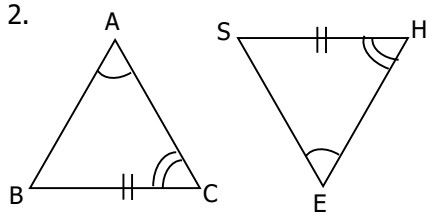
For each problem give the correct naming order of the congruent triangles. Write that name in order on the lines for the problem number (see box at bottom). Also, indicate which postulate or theorem is being used.

1.



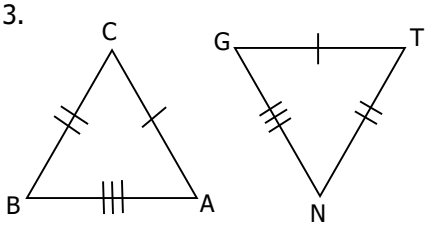
$\Delta ABC \cong \Delta$ _____ by _____

2.



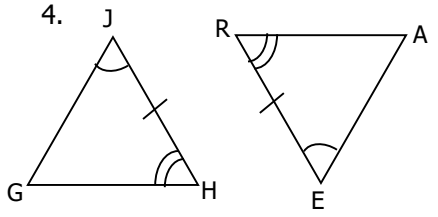
$\Delta ABC \cong \Delta$ _____ by _____

3.



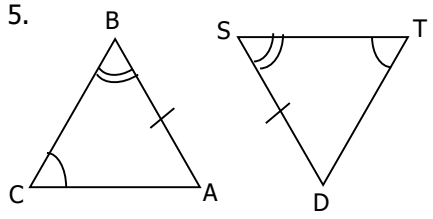
$\Delta ABC \cong \Delta$ _____ by _____

4.



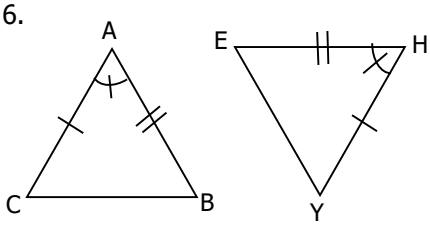
$\Delta GHJ \cong \Delta$ _____ by _____

5.



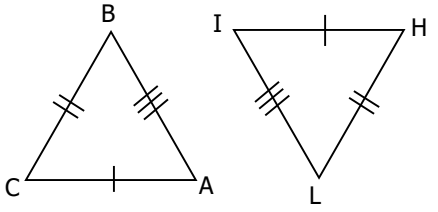
$\Delta ABC \cong \Delta$ _____ by _____

6.



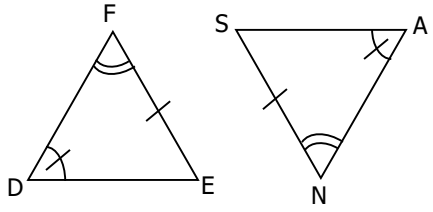
$\Delta ABC \cong \Delta$ _____ by _____

7.



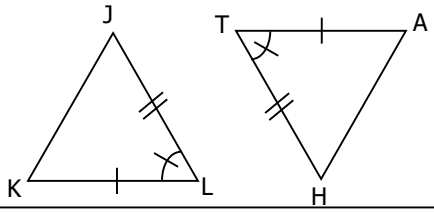
$\Delta ABC \cong \Delta$ _____ by _____

8.



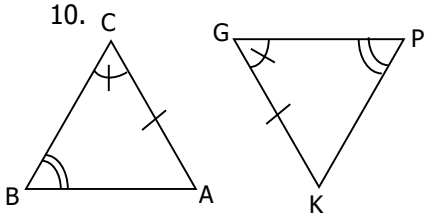
$\Delta DEF \cong \Delta$ _____ by _____

9.



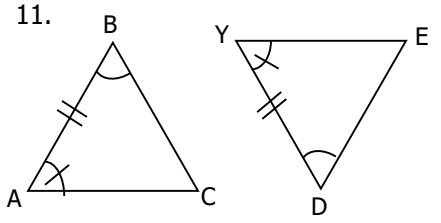
$\Delta JKL \cong \Delta$ _____ by _____

10.



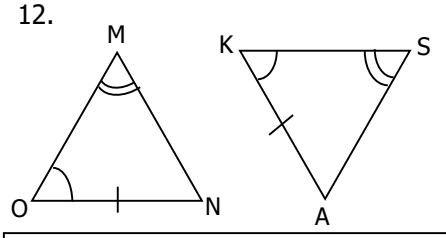
$\Delta ABC \cong \Delta$ _____ by _____

11.



$\Delta ABC \cong \Delta$ _____ by _____

12.



$\Delta MNO \cong \Delta$ _____ by _____

| | | |