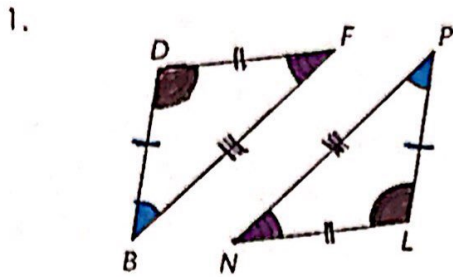


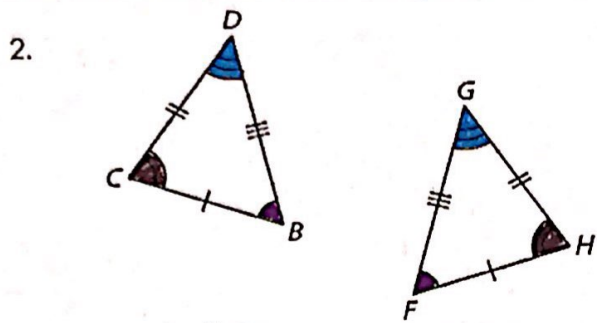
Congruent Triangles Class Assignment

DUE AT THE END OF CLASS TODAY. NO EXCEPTIONS!!!

1-2. Use the diagrams to create a congruence statement for each set of congruent triangles.



$\triangle BDF \cong \triangle PLN$



$\triangle BCD \cong \triangle FHG$

3-5. Name the corresponding angles and sides for each pair of congruent triangles.

3. $\triangle QRS \cong \triangle WXY$

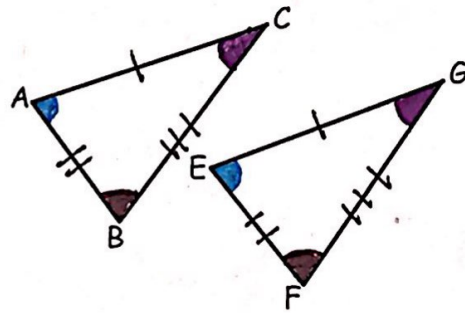
$\angle Q \cong \angle W$ $\overline{QR} \cong \overline{WX}$
 $\angle R \cong \angle X$ $\overline{RS} \cong \overline{XY}$
 $\angle S \cong \angle Y$ $\overline{SQ} \cong \overline{YW}$

4. $\triangle AFH \cong \triangle CGJ$

$\angle A \cong \angle C$ $\overline{AF} \cong \overline{CG}$
 $\angle F \cong \angle G$ $\overline{FH} \cong \overline{GJ}$
 $\angle H \cong \angle J$ $\overline{HA} \cong \overline{JC}$

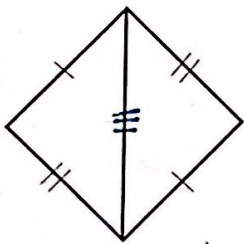
5. Suppose $\triangle ABC \cong \triangle EFG$. For each of the following, name the corresponding part.

- a. $\angle A \cong \angle E$
- b. $\angle BCA \cong \angle FGE$
- c. $\overline{AC} \cong \overline{EG}$
- d. $\angle F \cong \angle B$
- e. $\angle GEF \cong \angle CAB$
- f. $\overline{GE} \cong \overline{CA}$



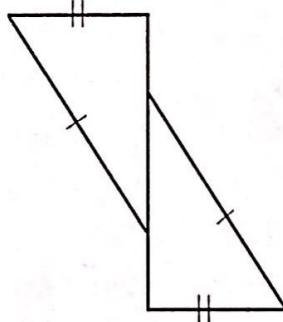
If congruent, state the congruence postulate, SSS, SAS, ASA, AAS, or HL. If not congruent, write none.

6. S-S-S

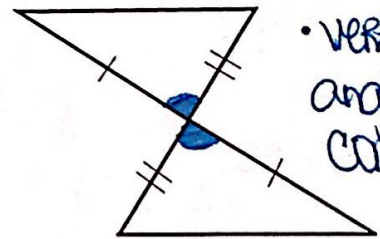


• shared side

7. NONE

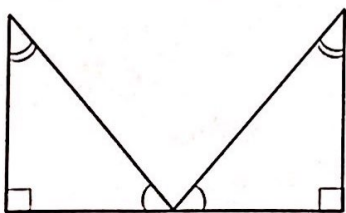


8. S-A-S



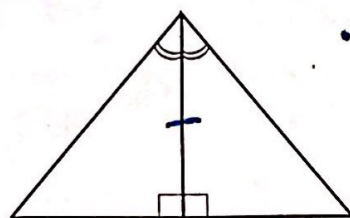
• vertical angles are congruent

9. NONE



• 3 angles prove similarity, not congruency!

10. A-S-A

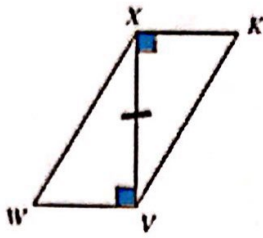


• shared side

Congruent Triangles Class Assignment

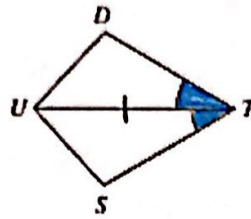
11. State what additional information is required in order to know that the triangles are congruent for the reason given.

SAS



needs another side
 $\overline{WV} \cong \overline{KV}$

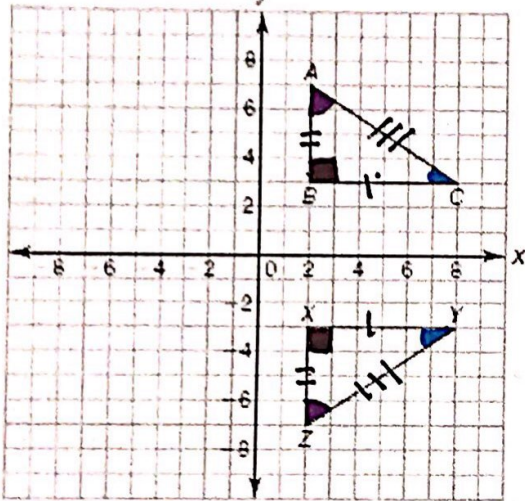
ASA



needs another angle
 $\angle SUT \cong \angle DUT$

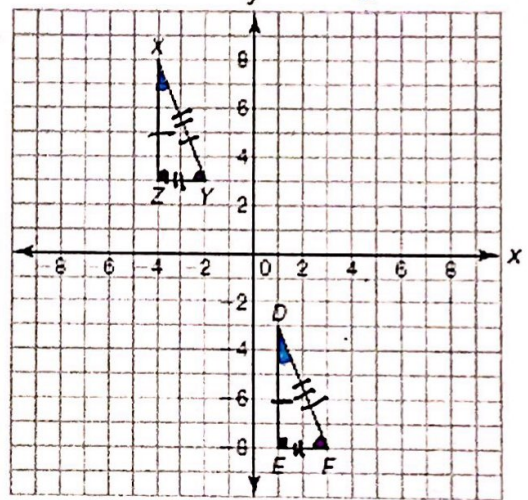
12-15. Identify the transformation used to create $\triangle XYZ$ on each coordinate plane. Identify the congruent angles and the congruent sides. Then, write a triangle congruence statement.

12. Reflection over x-axis



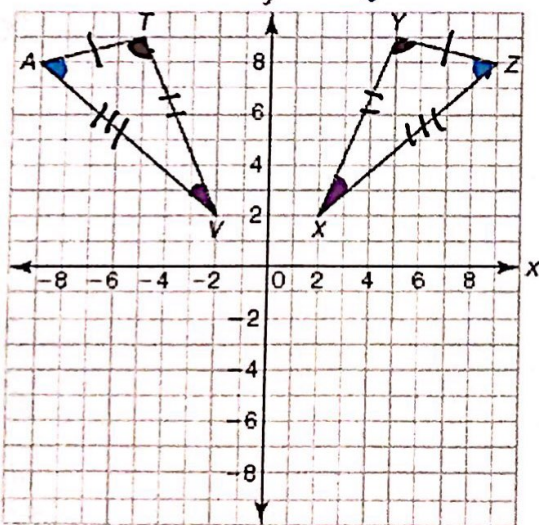
$\triangle XYZ \cong \triangle BCA$

13. $T(x, y) \rightarrow (x - 5, y + 11)$



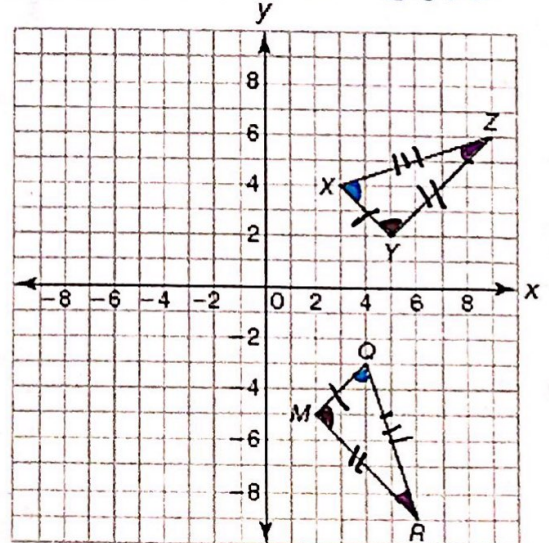
$\triangle DEF \cong \triangle XZY$

14. Reflection over y-axis



$\triangle TAV \cong \triangle YZX$

15. Rotation 90° CCW



$\triangle MRQ \cong \triangle YZX$