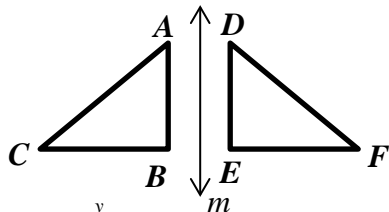




### Corresponding Parts of Congruent Figures (PAGE 1)

If two figures are congruent, their corresponding sides are congruent and their corresponding angles are congruent. For instance, in the figure below, triangle  $ABC$  is congruent to triangle  $DEF$  because  $\triangle DEF$  is the image of  $\triangle ABC$  reflected over line  $m$ .

$$\triangle ABC \cong \triangle DEF$$



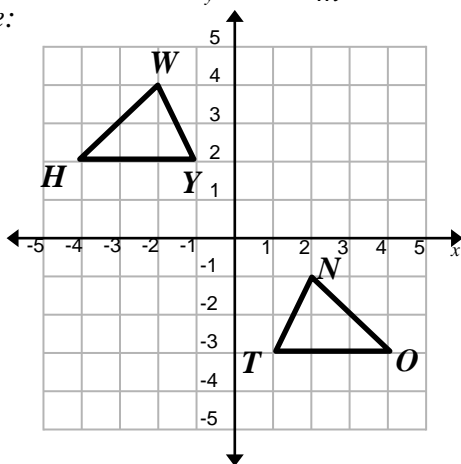
Congruent Sides:

$$\overline{AB} \cong \overline{DE}; \overline{BC} \cong \overline{EF}; \overline{CA} \cong \overline{FD}$$

Congruent Angles:

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

Example:



$\triangle WHY \cong \triangle NOT$  because one triangle maps on top of the other. The transformations that show this: reflect  $\triangle WHY$  over the  $y$ -axis and then translate 5 units down.

Therefore, congruence statements can be written:

$$\overline{WH} \cong \overline{NO}; \overline{HY} \cong \overline{OT}; \overline{WY} \cong \overline{NT}$$

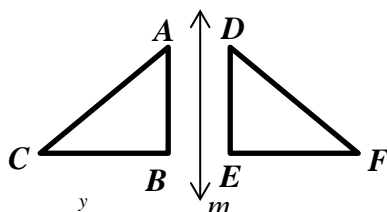
$$\angle W \cong \angle N; \angle H \cong \angle O; \angle Y \cong \angle T$$



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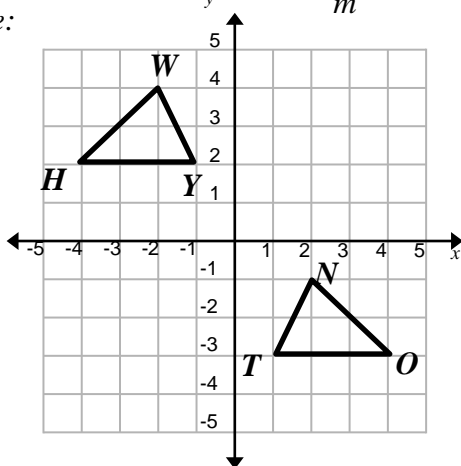
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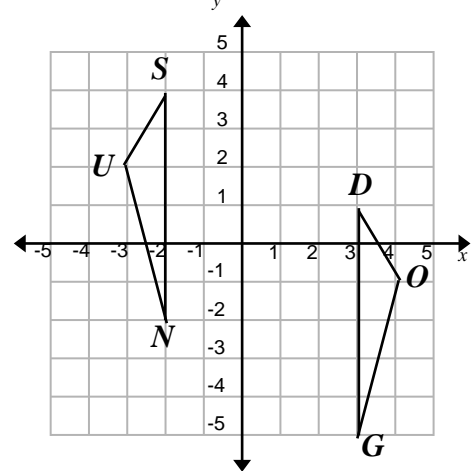
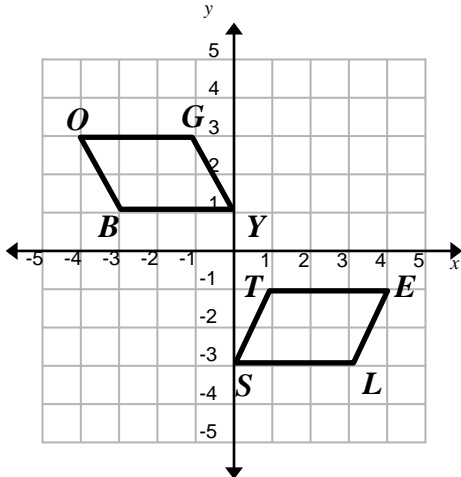
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### Corresponding Parts of Congruent Figures (PAGE 2)

For the following figures: (1) list the transformations that map one figure onto the other; (2) determine which angles and sides of the figures correspond; (3) write the congruence statements.



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