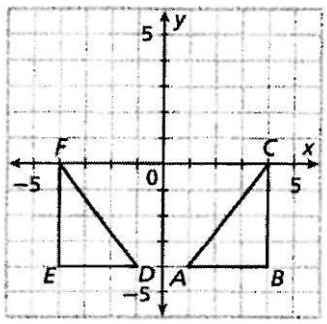
Geometry (G.CO.6) Name: _____

Unit One B – Congruence as Rigid Motion (HW1) Date: _____ Period: _____

Use the definition of congruence in terms of rigid motions to determine whether the two figures are congruent (circle your answer) and explain your answer.

Your Work: ***Corrected Work:***

1.

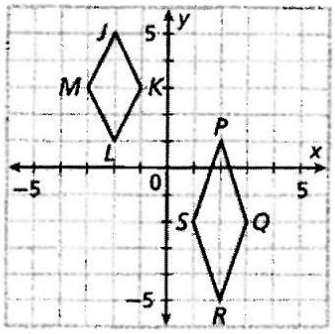


Congruent Not Congruent

Explanation:

Congruence Statement: _____

2.

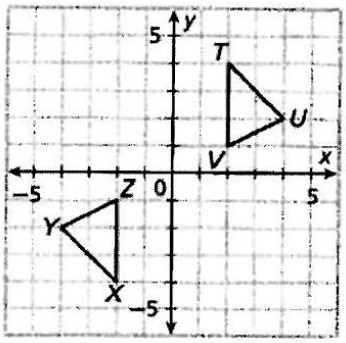


Congruent Not Congruent

Explanation:

Congruence Statement: _____

3.



Congruent Not Congruent

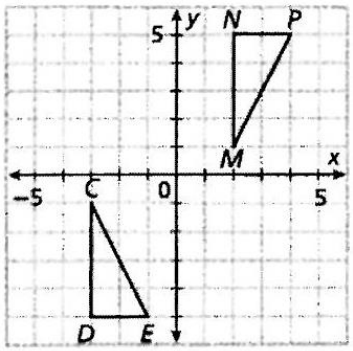
Explanation:

Congruence Statement: _____

For each pair of congruent figures, find a composition of rigid motions that maps one figure to the other.

Your Work: ***Corrected Work:***

4.



Composition of Rigid Motions:

_____

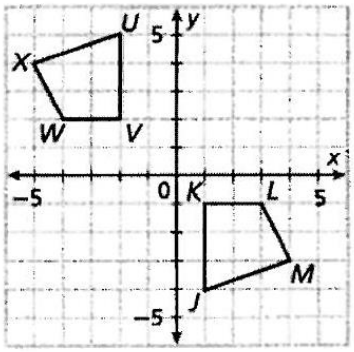
_____

_____

_____

Congruence Statement: _____

5.



Composition of Rigid Motions:

_____

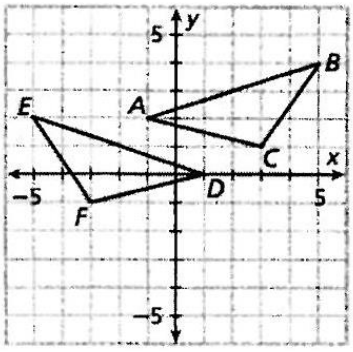
_____

_____

_____

Congruence Statement: _____

6.



Composition of Rigid Motions:

_____

_____

_____

_____

Congruence Statement: _____

7. Consider a mystery transformation that maps ΔXYZ to $\Delta X'Y'Z'$.

a. What is the image of $\overline{XY}$? _____

b. What is the image of Z? _____

c. What is the preimage of $\angle Y'$? _____

d. Can you conclude that YZ = Y'Z'? Why or why not?