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$\qquad$

1. Reflect $\triangle A B C$ across the $x$-axis and label the image.

a. Write a coordinate rule to represent this transformation.
2. Reflect $A B C D$ across the $y$-axis and label the image.

a. Write a coordinate rule to represent this transformation.
3. Reflect $\triangle A B C$ across the line $x=-3$ and label the image.

a. Write a coordinate rule to represent this transformation.
4. Reflect $A B C D$ across the line $y=x$.

a. Write a coordinate rule to represent this transformation.
5. For each of the following:

- Draw the line of reflection that would reflect the pre-image onto the image.
- Find the equation for the line of reflection.
- Write a coordinate rule to describe the reflection.
A. Equation $\qquad$

Coordinate Rule: $\qquad$

C. Equation $\qquad$

Coordinate Rule: $\qquad$

B. Equation $\qquad$

Coordinate Rule: $\qquad$

D. Equation $\qquad$

Coordinate Rule: $\qquad$


A. What is the equation of the line of reflection?
8. The following table lists the properties of translations discovered in the previous lesson. Put a YES or NO in the box if the property is also true for reflections.

| Properties of Translations | Also true for Reflections? Yes or No |
| :--- | :--- |
| Segments connecting the corresponding <br> vertices of the image and pre-image are the <br> same length. |  |
| Segments connecting the corresponding <br> vertices of the image and pre-image are <br> parallel to each other. |  |
| Corresponding segments in the image and <br> pre-image are the same length. |  |
| Corresponding angles in the image and pre- <br> image have the same measure. |  |
| Parallel lines in the pre-image remain <br> parallel lines in the image. |  |
| Corresponding segments in the image and <br> pre-image have the same slope. |  |

