Use this worksheet for the Mirror-Mirror lesson.

## Handedness

In the boxes below, describe your conclusions about whether each function preserves or reverses the handedness of the motion of x. (Use CW for clockwise and CCW for counter-clockwise.)

|  |  |  |  |
| --- | --- | --- | --- |
| Function | Domain | Range | Conclusion |
| Reflect | When *x* moves CW on △*ABC,* | *x'* moves \_\_\_\_\_\_ on △*A'B'C'.* | The reflect function  ( preserves / reverses ) handedness. |
| Rotate | When *x* moves | *x'* moves | The rotate function |
| Glide Reflect | When *x* moves | *x'* moves | The glide reflect function |
| Translate | When *x* moves | *x'* moves | The translate function |
| Dilate | When *x* moves | *x'* moves | The dilate function |

## Explore Multiple Reflections

On page 1, what single function produced the same result as your two reflections? What did you notice about your solution?

On page 2, what single function produced the same result as your three reflections? What did you notice?

On page 3, what single function, from a different family than on page 1, produced the same result as your two reflections? What did you notice about your solution?

## Construct Multiple Reflections

On the back of this paper record your group’s efforts, on each page, to use reflections to produce the same result as the transformation function already shown on the page. If you were successful, describe how you constructed the mirror(s). If you were not successful, explain why.