Reflections: Guided Notes

# Vocabulary

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** a type of transformation that uses a *reflection line* like a mirror to create a mirror image; the figure is **flipped** over the *reflection line*

Is a reflection an example of rigid motion?

# Special Reflections: Algebraic Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | |
| Reflected over… | Algebraic Rule |  | Reflected over… | Algebraic Rule |
| …the *x*-axis |  |  | …the *y*-axis |  |
|  |  |  |  |  |
|  | |  |  | |
| Reflected over… | Algebraic Rule |  | Reflected over… | Algebraic Rule |
| …the line *y* = *x* |  |  | …the line *y* = –*x* |  |

# Applying Algebraic Rules

**1)** Draw the image and complete the table below for the unshaded preimage.

| Graph | Verbal Description | Algebraic Rule |
| --- | --- | --- |
|  | The preimage is reflected over the line . |  |

# Other Reflections

**2)** What if we reflect an image over a different line?   
Reflect the following preimage over the line .

**3)** What if the preimage was not on the coordinate plane? How would we construct the image? Construct the image given the following preimage and line of reflection.

