$\qquad$

## Observations

| Transformation | $(x, y)$ | $\rightarrow$ | $()$, |
| :--- | :--- | :--- | :--- |
| Reflection across the $y$-axis |  |  | $(x, y)$ |
| Reflection across the $x$-axis | $\rightarrow$ | $()$, |  |
| Reflection across the line $y=x$ | $(x, y)$ | $\rightarrow$ | $()$, |
| Translation given by $\mathbf{v}=(a, b)$ | $(x, y)$ | $\rightarrow$ | $()$, |
| $90^{\circ}$ counterclockwise rotation about the origin |  |  | $()$, |
| $90^{\circ}$ clockwise rotation about the origin | $(x, y)$ | $\rightarrow$ | $()$, |
| $180^{\circ}$ rotation about the origin | $(x, y)$ | $\rightarrow$ | $()$, |

