## Composition of Transformations Notes

Name $\qquad$
Composition of Transformation: any combination of a reflection, rotation, translation, or dilation. The new image could be similar (non-rigid transformation) or congruent (rigid transformation) to the original.

## Examples:

1) What transformations and/or dilations have occurred?


Are the figures similar or congruent?
3) Dilate the object with a scale factor of $1 / 2$, then rotate $90^{\circ}$ clockwise.


Give the new coordinates
2) What transformations and/or dilations have occurred?


Are the figures similar or congruent?
4) Rotate the figure $180^{\circ}$ counterclockwise, then translate 5 units up.


Give the new coordinates


Are the figures similar or congruent?
3) Reflect over the $y$-axis, then dilate to a scale factor of 3.


Give the new coordinates.
2) What transformations and/or dilations have occurred?


Are the figures similar or congruent?
4) Rotate $90^{\circ}$ counterclockwise, translate 6 units down, then reflect over the $\mathbf{x}$-axis.


Give the new coordinates.

