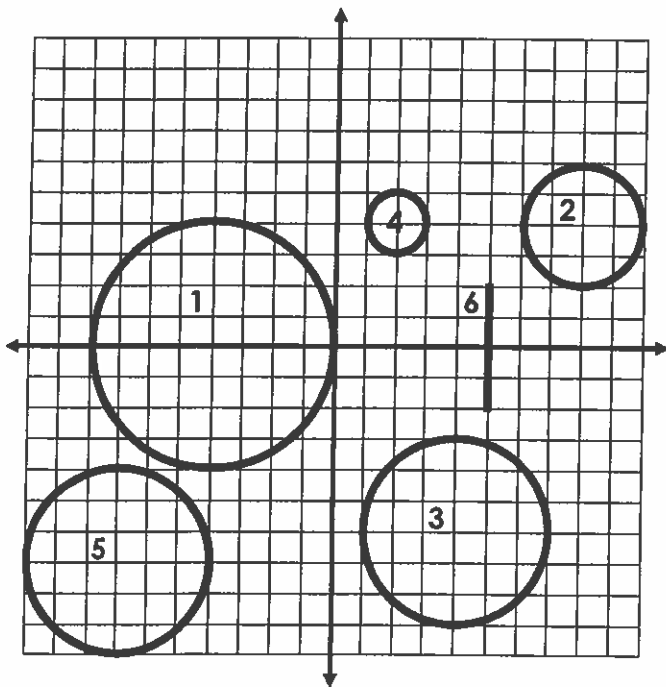


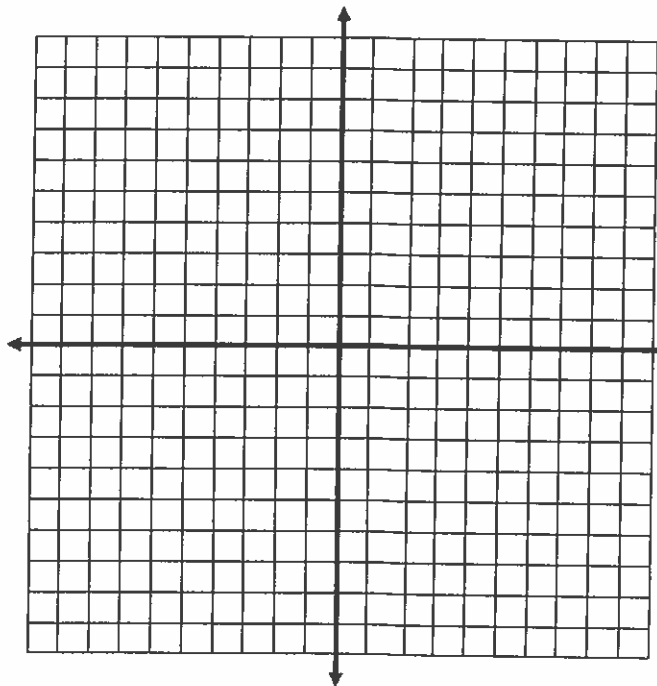
Name \_\_\_\_\_

## EMOJI TRANSFORMATIONS

Transform each shape or line as instructed below to create an emoji on your graph. Each shape is numbered with the transformation that should be applied.



1. Translate right 4 units. Then dilate by a scale factor of 2 about the origin.
2. Dilate by a scale factor of 0.5 about the origin.
3. Reflect over the line  $y = -3$ .
4. Rotate 90 degrees counterclockwise around the origin.
5. Translate up 7 units and right 3 units.
6. Reflect over the line  $y = -x$ .

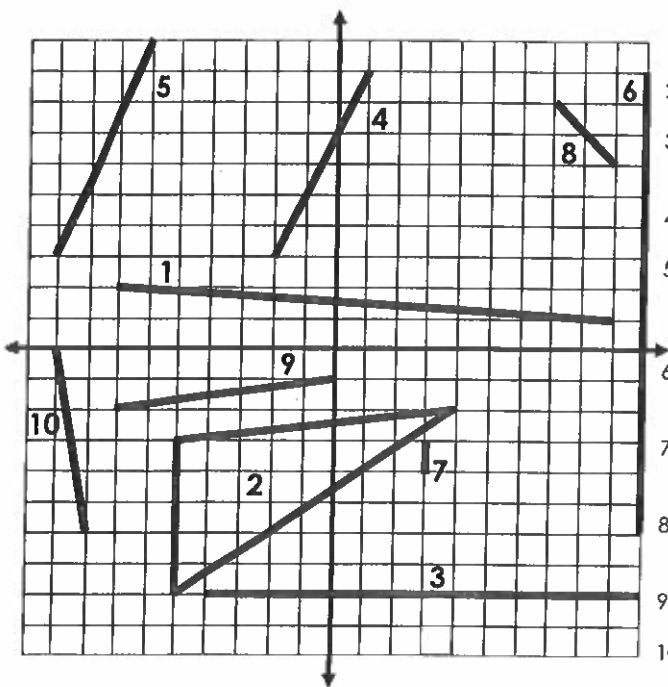


© Rise over Run

Name \_\_\_\_\_

## EMOJI TRANSFORMATIONS

Transform each shape or line as instructed below to create an emoji on your graph. Each shape is numbered with the transformation that should be applied.



1. Rotate 90 degrees counterclockwise around the origin.
2. Reflect over the line  $y = x$ .
3. Dilate by a scale factor of 0.5 about the origin.
4. Reflect over the y-axis.
5. Translate down 7 units and then reflect over the line  $x = -2$ .
6. Reflect over the line  $y = -x$  and then translate up 4 units.
7. Dilate by a scale factor of 2 about the origin.
8. Reflect over the x-axis and then reflect over the y-axis.
9. Reflect over the line  $y = -5$ .
10. Rotate 270 degrees clockwise around the origin.

