Rotating a Shape about
 an External Point

**Geometry**

**Unit 1 Line Master 7a**

Record the coordinates for two vertices of each shape
and their images in the table below.

1. Draw Shape 1 using a maximum of 6 points.

2. Choose a point P outside the shape.
Rotate Shape 1 90° counterclockwise about P.
Label the rotation imageas Shape 2.

3. Repeat Step 2 for a counterclockwise rotation of 180° about P.
Label the rotation image of Shape 1 as Shape 3.

4. Repeat Step 3 for a counterclockwise rotation of 270° about P.
Label the rotation image of Shape 1 as Shape 4.

5. Describe how each image is related to the original shape.



Rotating a Shape about
 an External Point (cont’d)

**Geometry**

**Unit 1 Line Master 7b**

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| **Rotation Image Shape 2** |
| **Description** | **Coordinates of Vertices of Shape 1** | **Coordinates of Vertices of Image Shape 2** |
|  |  |  |
| **Rotation Image Shape 3** |
| **Description** | **Coordinates of Vertices of Shape 1** | **Coordinates of Vertices of Image Shape 3** |
|  |  |  |
| **Rotation Image Shape 4** |
| **Description** | **Coordinates of Vertices of Shape 1** | **Coordinates of Vertices of Image Shape 4** |
|  |  |  |