Math 8
Lesson 9-3

Rotating Figures
Classwork

Name: $\qquad$
Date: $\qquad$ Per. $\qquad$

1. Rotate triangle $\mathrm{ABC} 90^{\circ}, 180^{\circ}$, and $270^{\circ}$ about the origin. Write the coordinates in arrow format


| Rotation <br> Angle | Original <br> Coordinate | Rotated <br> Coordinate |
| :---: | :--- | :--- |
| $90^{\circ}$ | $\mathrm{A}(1,1) \longrightarrow$ |  |
|  | $\mathrm{B}(2,3)$ |  |
|  | $\mathrm{C}(5,1)$ |  |
| $180^{\circ}$ | $\mathrm{A}(1,1)$ |  |
|  | $\mathrm{B}(2,3)$ |  |
|  | $\mathrm{C}(5,1)$ |  |
| $270^{\circ}$ | $\mathrm{A}(1,1)$ |  |
|  | $\mathrm{B}(2,3)$ |  |
|  | $\mathrm{C}(5,1)$ |  |

2. Rotate rectangle $\mathrm{ABCD} 90^{\circ}, 180^{\circ}$, and $270^{\circ}$ about point A. Write the coordinates in arrow format


| Rotation <br> Angle | Original <br> Coordinate |  |
| :---: | :--- | :--- |
| $90^{\circ}$ |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| $180^{\circ}$ |  |  |
|  |  |  |
|  |  |  |
| $270^{\circ}$ |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

3. Rotate shape $\mathrm{ABCDEF} 90^{\circ}, 180^{\circ}$, and $270^{\circ}$ about the origin.

4. Create your own shape and move it (translate, mirror, or rotate). You must do at least 2 different types of moves, and use words to describe the moves.

