

## SECTION 4.3: ROTATIONS

Homework: \_\_\_\_\_

### Learning Targets:

- 4a. Understanding of how to perform translations, rotations, reflections, & dilations on a coordinate plane.
- 4b. Understanding of how to read and write transformation rules.
- 4c. Understanding of how to perform compositions of translations, rotations, and reflections.
- 4d. Understanding of how to read and write composition transformation rules.
- 4e. Understanding of which transformations maintain congruency.
- 4f. Understanding of how to find missing measures or solve equations given different transformations.

### Vocabulary:

90, 180, 270 turns

Angle of Rotation

Center of Rotation

Clockwise

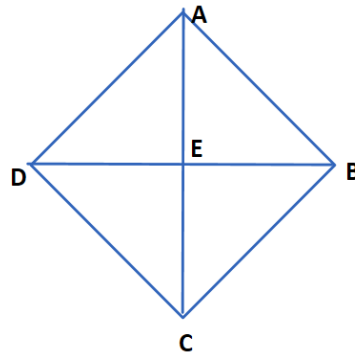
Counterclockwise

Rotation

Rotational Symmetry

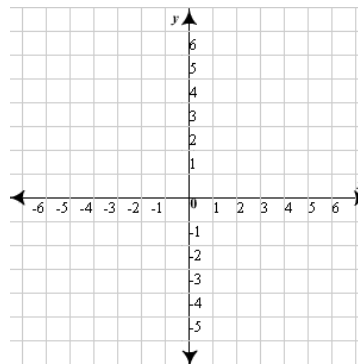
*Use the figure to the right to determine each rotation.*

1.  $90^\circ$  clockwise rotation of  $\overline{AE}$  about E
2.  $180^\circ$  clockwise rotation of  $\overline{DE}$  about E
3.  $90^\circ$  counterclockwise rotation of  $\overline{AB}$  about E
4.  $270^\circ$  clockwise rotation of  $\overline{CD}$  about E



*Use a coordinate plane to help you determine the coordinates of A(2, 3) after each rotation.*

5.  $90^\circ$  counterclockwise
6.  $270^\circ$  counterclockwise
7.  $180^\circ$  clockwise
8.  $90^\circ$  clockwise



### **Extra Possible Problems**

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### **Activities for Lesson**

- Cabri Jr Activity
- Patty Paper Rotations
- Human Rotations (practice clock and counterclockwise)
- Vocabulary Foldable

### **Possible Assignments**

- Page 194 (7 – 16)
- Rotation Practice #1
- Rotation Practice #2