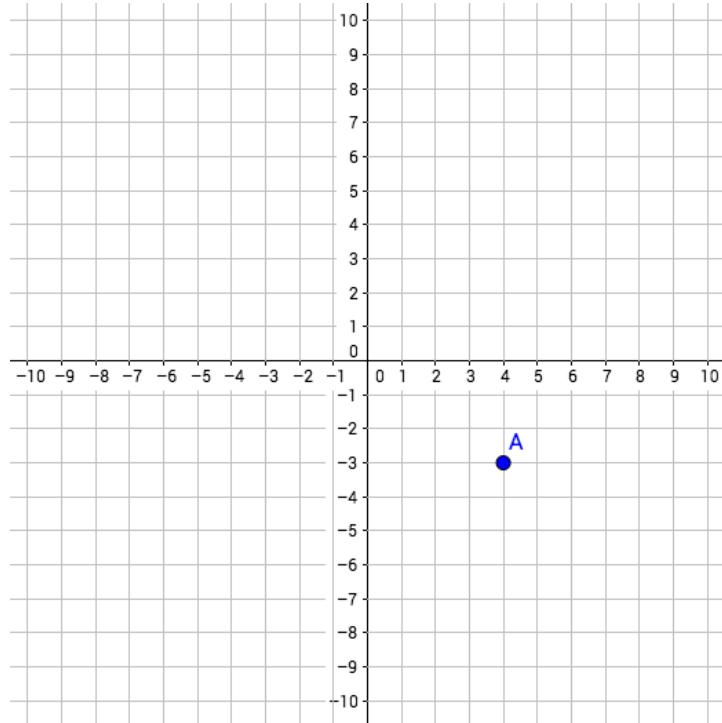


Rotations Activity Sheet

NAME _____

Trace and label the image and axis from the grid below onto your patty paper. Place your pencil on origin, (0,0), the center of rotation, and rotate the figure the indicated direction and number of degrees. Gently pick up the corner of your patty paper to see where to draw the new image. Label all new points using appropriate prime notation. After you have completed your drawings, complete the table. What do you notice about the pre-image and new image? Provide your observations below.

1.

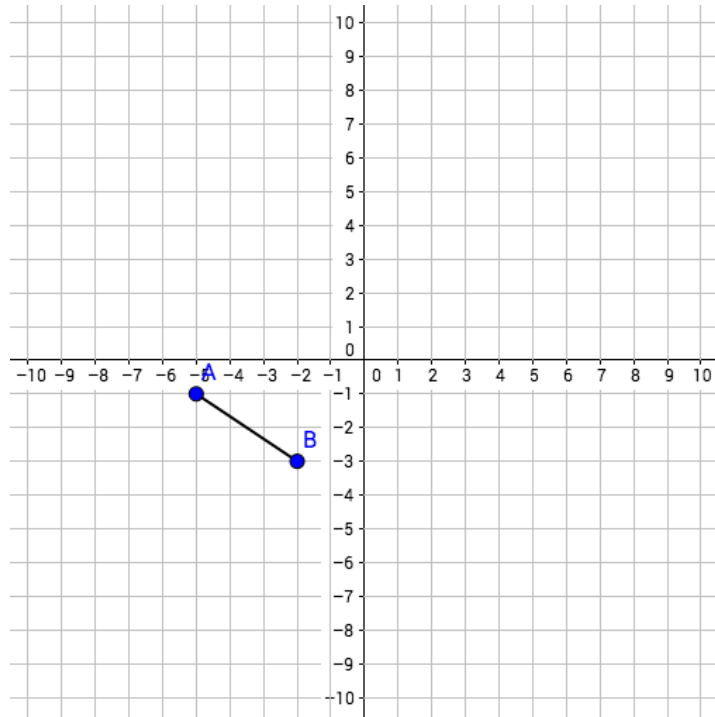


ORIGINAL COORDINATES	ROTATION	NEW COORDINATES
A: (,)	90°, clockwise	A ^I : (,)
A: (,)	180°, clockwise	A ^{II} : (,)
A: (,)	270°, clockwise	A ^{III} : (,)

Observations:



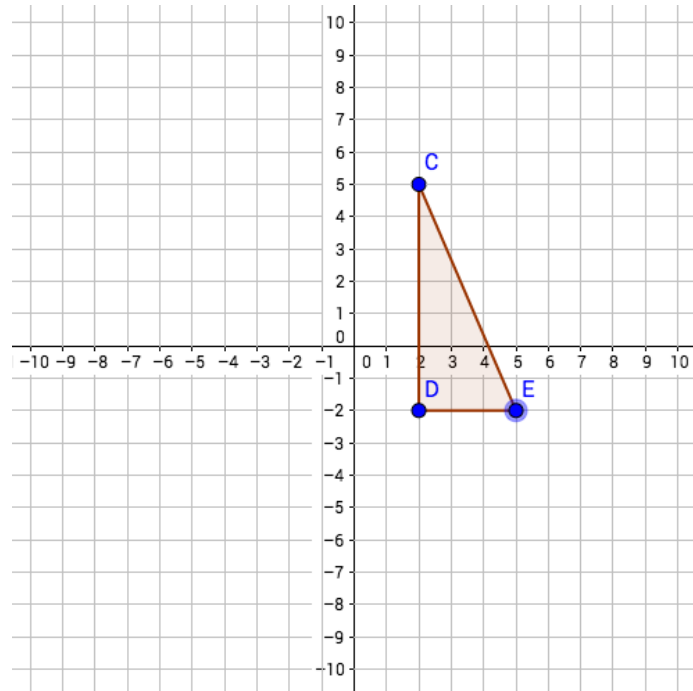
2.



ORIGINAL COORDINATES	ROTATION	NEW COORDINATES
A: (,) B: (,)	90°, clockwise	A ^I : (,) B ^I : (,)
A: (,) B: (,)	180°, clockwise	A ^{II} : (,) B ^{II} : (,)
A: (,) B: (,)	270°, clockwise	A ^{III} : (,) B ^{III} : (,)

Observations:

3.

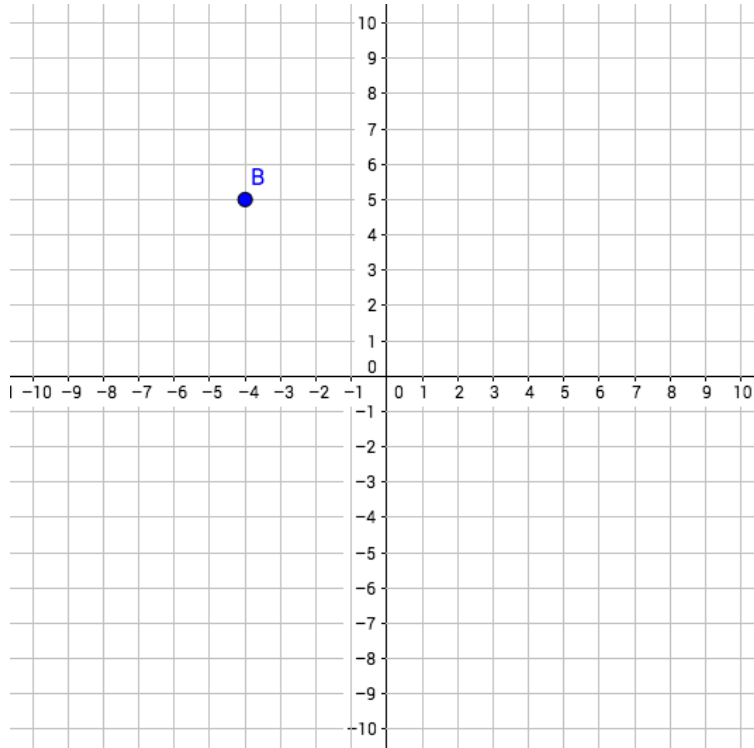


ORIGINAL COORDINATES	ROTATION	NEW COORDINATES
C: (,) D: (,) E: (,)	90° clockwise	C ^I : (,) D ^I : (,) E ^I : (,)
C: (,) D: (,) E: (,)	180° clockwise	C ^{II} : (,) D ^{II} : (,) E ^{II} : (,)
C: (,) D: (,) E: (,)	270° clockwise	C ^{III} : (,) D ^{III} : (,) E ^{III} : (,)

Observations:

What patterns do you notice when rotating a figure clockwise?

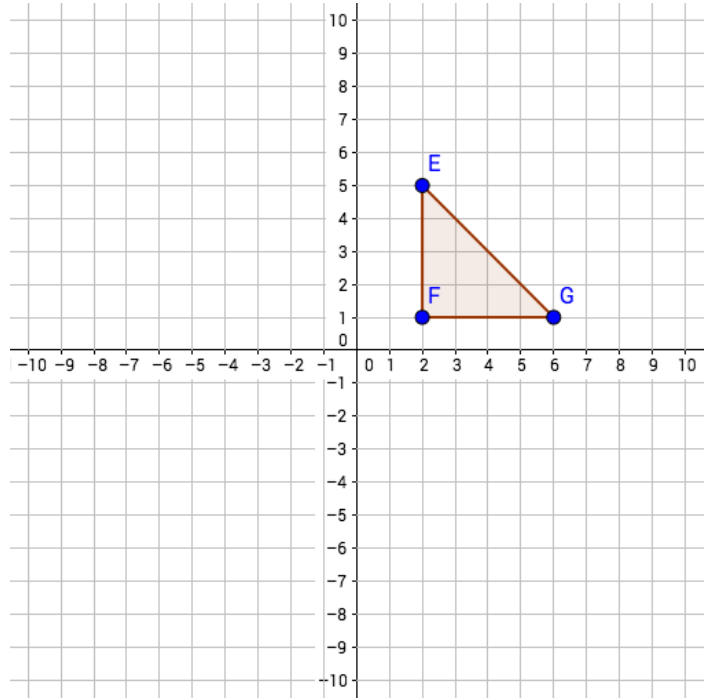
4.



ORIGINAL COORDINATES	ROTATION	NEW COORDINATES
B: (,)	90°, counterclockwise	B ^I : (,)
B: (,)	180°, counterclockwise	B ^{II} : (,)
B: (,)	270°, counterclockwise	B ^{III} : (,)

Observations:

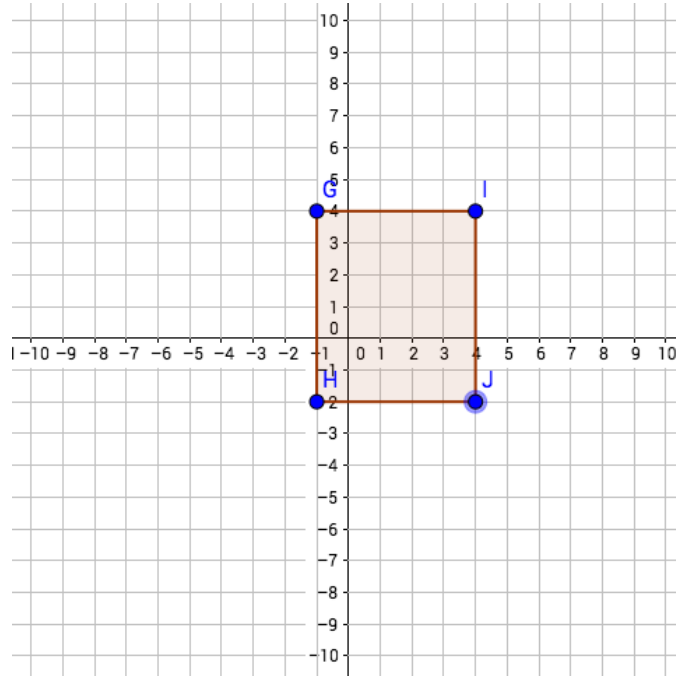
5.



ORIGINAL COORDINATES	ROTATION	NEW COORDINATES
E: (,) F: (,) G: (,)	90°, counterclockwise	E ^I : (,) F ^I : (,) G ^I : (,)
E: (,) F: (,) G: (,)	180°, counterclockwise	E ^{II} : (,) F ^{II} : (,) G ^{II} : (,)
E: (,) F: (,) G: (,)	270°, counterclockwise	E ^{III} : (,) F ^{III} : (,) G ^{III} : (,)

Observations:

6.



ORIGINAL COORDINATES	ROTATION	NEW COORDINATES
G: (,) H: (,) I: (,) J: (,)	90°, counterclockwise	G ^I : (,) H ^I : (,) I ^I : (,) J ^I : (,)
G: (,) H: (,) I: (,) J: (,)	180°, counterclockwise	G ^{II} : (,) H ^{II} : (,) I ^{II} : (,) J ^{II} : (,)
G: (,) H: (,) I: (,) J: (,)	270°, counterclockwise	G ^{III} : (,) H ^{III} : (,) I ^{III} : (,) J ^{III} : (,)

Observations:

What patterns do you notice when rotating a figure counterclockwise?

What patterns do you notice when rotating a figure clockwise?

What similarities and differences do you notice?

7. Using what you have noticed in this activity, what general statements can you provide about rotations? Provide at least three statements.

1.

2.

3.

