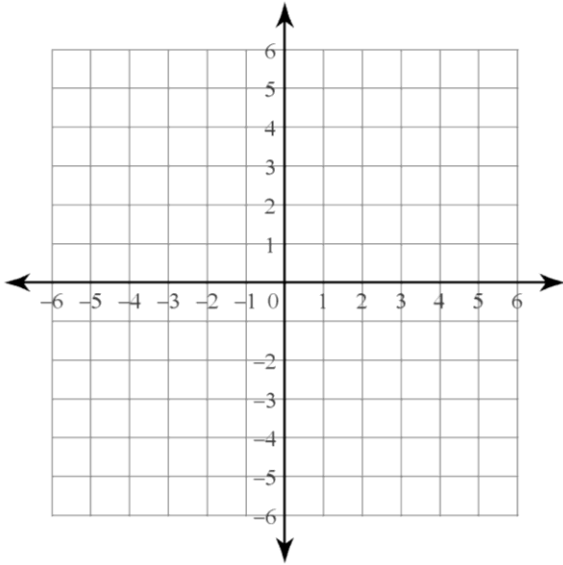Name: _____ Due Date _____ Period _____

13.3b Rotations Day Two

Every time you are told to rotate a shape, what two pieces of information do you need to know about the rotation?

- _____
- _____

1) Rotate △BAT where F(-5,3), O(-1,4), and R(-2,2) 180° clockwise about the origin.
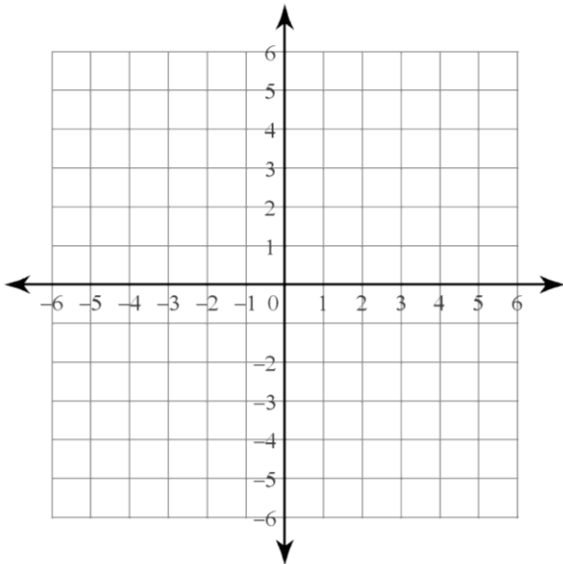

B (___,___)   B'(____,___)
A (___,___)   A'(____,___)
T (___,___)   T'(____,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

2) Rotate △GST G(1,2), S(3,0), AND T(4,4) 180° counterclockwise about the origin.
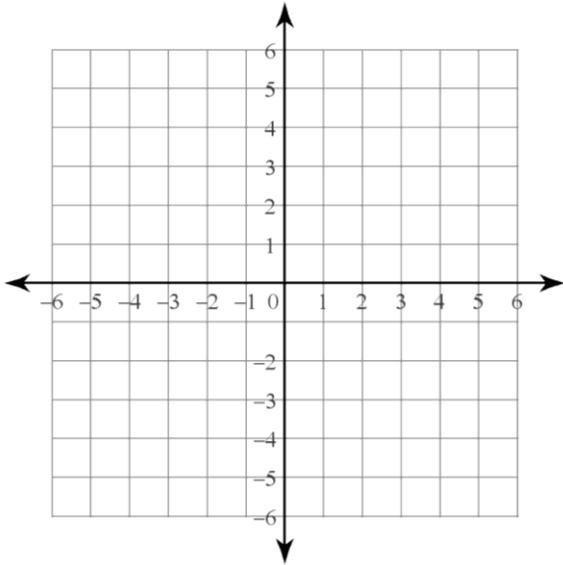

G (___,___)   G'(____,___)
S (___,___)   S'(____,___)
T (___,___)   T'(____,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

When you rotate a shape 180°, does it matter if you go clockwise or counterclockwise?

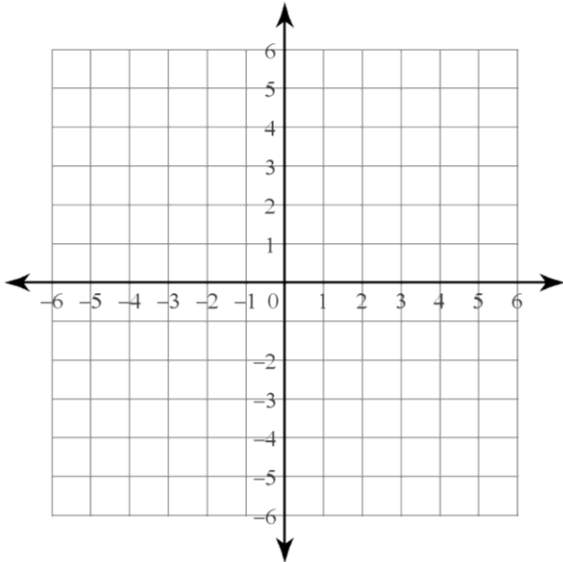3) Rotate △GHL, where G(2,1), H(0,3), and L(5,4), 90° clockwise about the origin.

G(___,___)   G'(___,___)
H(___,___)   H'(___,___)
L(___,___)   L'(___,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

4) Rotate △WCH, where W(-3,-1), C(-4,-3), and H(-1,-3), 90° counterclockwise about the origin.

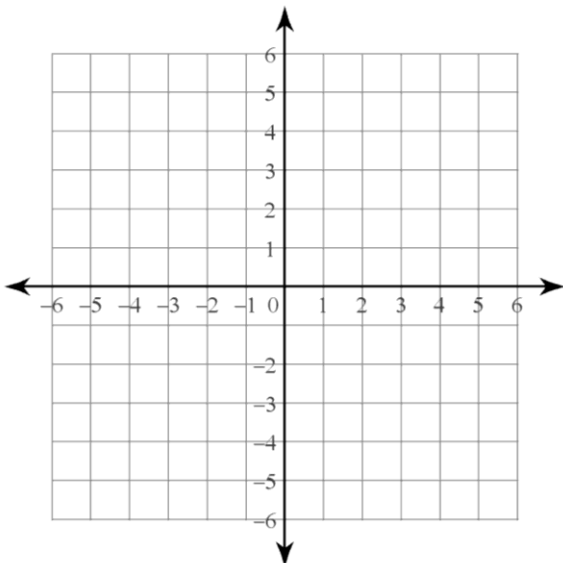W(___,___)   W'(___,___)
C(___,___)   C'(___,___)
H(___,___)   H'(___,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

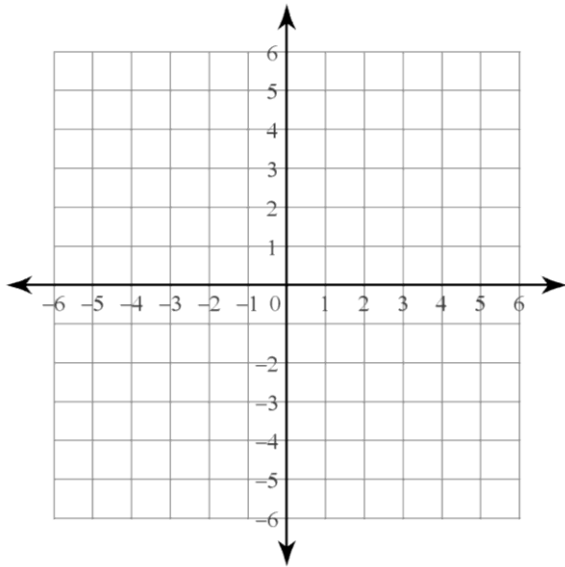5) Rotate △WCH, where W(-3,-1), C(-4,-3), and H(-1,-3), 270° clockwise about the origin.

W(___,___)   W'(___,___)
C(___,___)   C'(___,___)
H(___,___)   H'(___,___)

Describe how you did the rotation:

How does this relate to rotating △WCH 90° counterclockwise about the origin?

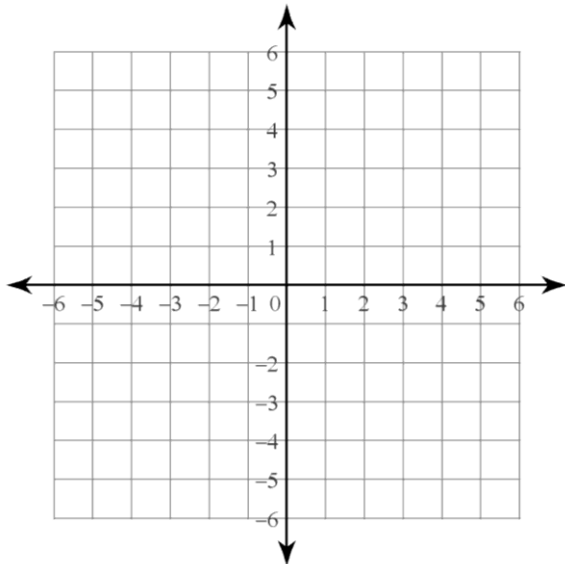6) Rotate △CAT, where C(2,0), A(4,2), and T(1,3), 180° clockwise about the point (-1,-1).

C(___,___)   C'(___,___)
A(___,___)   A'(___,___)
T(___,___)   T'(___,___)

Describe how you did the rotation:

How is this different from rotating 180° about the origin?

7) Rotate △BR,, where B(-3,-1), R(-1,1), and M(-2,3), 90° clockwise about the point (2,1).

B(___,___)   B'(___,___)
R(___,___)   R'(___,___)
M(___,___)   M'(___,___)

Describe how you did the rotation:

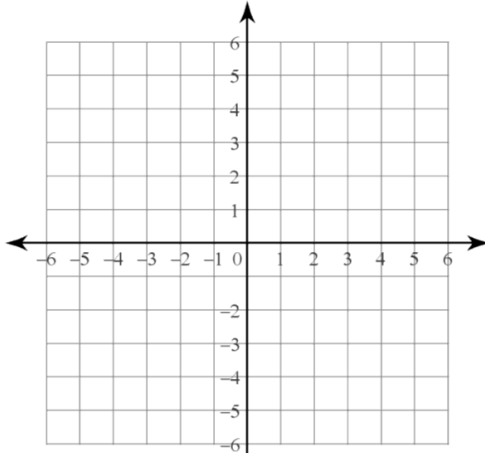How is this different from rotating about the origin?

Use the following space to describe how to do a rotation about a point:

What stays the same when you do a rotation?

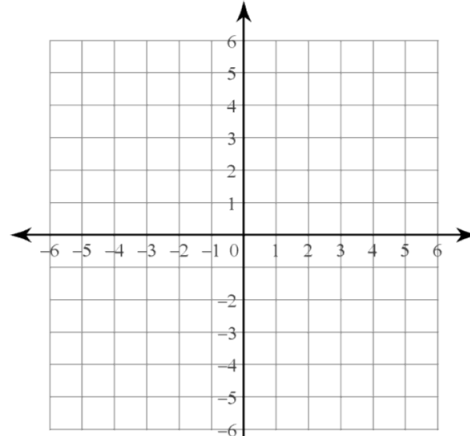Does the distance the from the center of rotation change during a rotation?

Rotate each triangle as indicated by each problem.

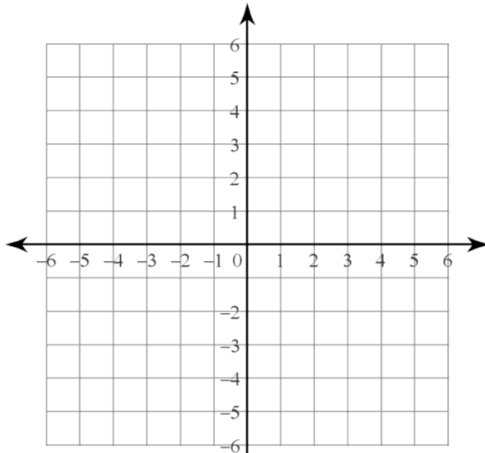8) ΔRST: R(2, -1), S(4, 0), and T(1, 3) 90°
counter clockwise about the origin.

R' (___,___) S'(___,___) T'(___,___)

9) ΔFUN: F(-4, -1), U(-1, 3), and
N(-1, 1)180° clockwise about the origin.

F' (___,___) U'(___,___) N'(___,___)

10) ΔTRL: T(2, -1), R(4, 0), and L(1, 3) 90°
clockwise about the point (3,-2)

T' (___,___) R'(___,___) L'(___,___)

11) ΔCDY: C(-4,2), D(-1, 2), and Y(-1, -1)
180° counter clockwise about the point (1, 1)

C' (___,___) D'(___,___) Y'(___,___)
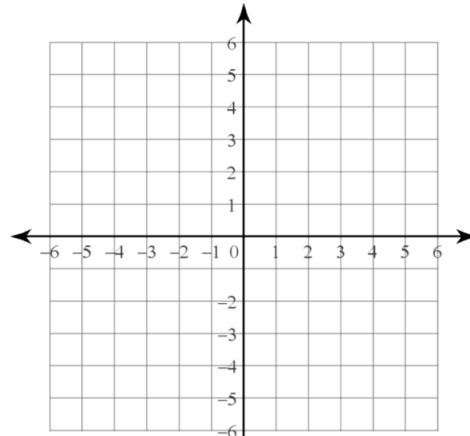
12) ΔSCR: S(-3,1), C(-1,3), and R(-1,-1) 90°
clockwise about the point (1,-2)

T' (___,___) R'(___,___) L'(___,___)
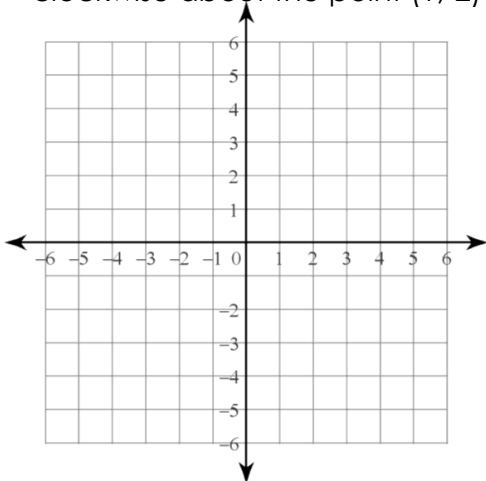
2) ΔSCR: S(-3,1), C(-1,3), and R(-1,-1) 90°
counter clockwise about the point (1,-2)

C' (___,___) D'(___,___) Y'(___,___)