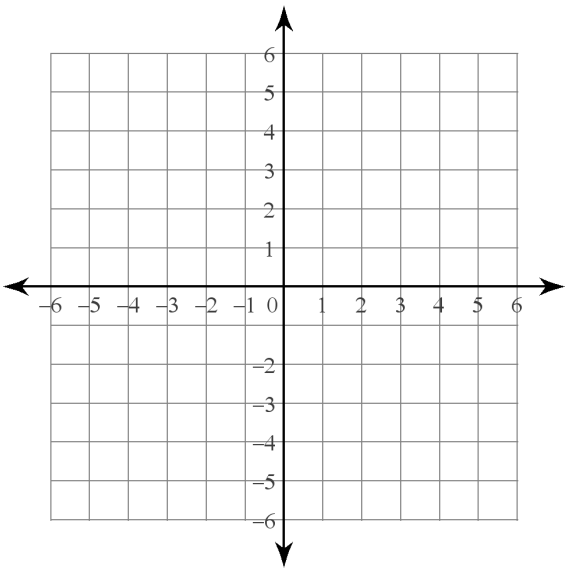
Geometry – Rotations Name: _____

1) Rotate ΔBAT where F(-5,3), O(-1,4), and R(-2,2) 180^o clockwise about the origin.

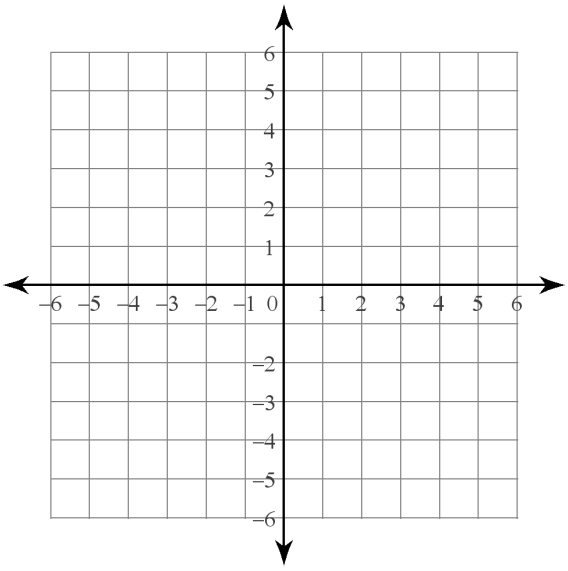


B (___,___) B'(____,___)
A (___,___) A'(____,___)
T (___,___) T'(____,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

2) Rotate ΔGST G(1,2), S(3,0), AND T(4,4) 180^o counterclockwise about the origin.



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

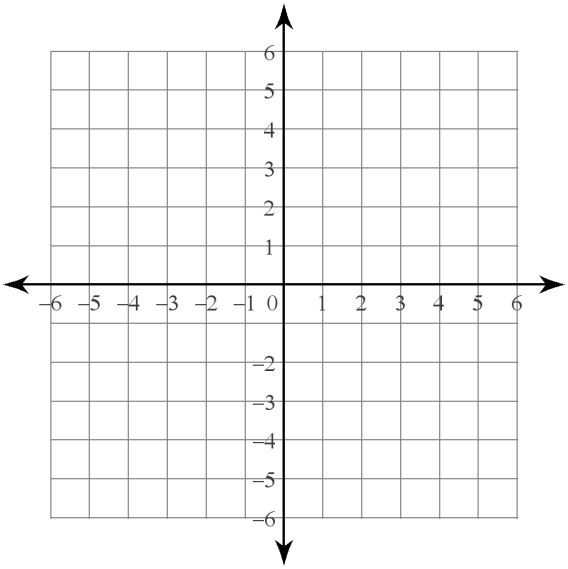
Describe how you did the rotation:

Describe what happened to the coordinates of each point:

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

Write a rule for what happens when you rotate a shape 180^o about the origin.

3) Rotate ΔGHL, where G(2,1), H(0,3), and L(5,4), 90^o clockwise about the origin.

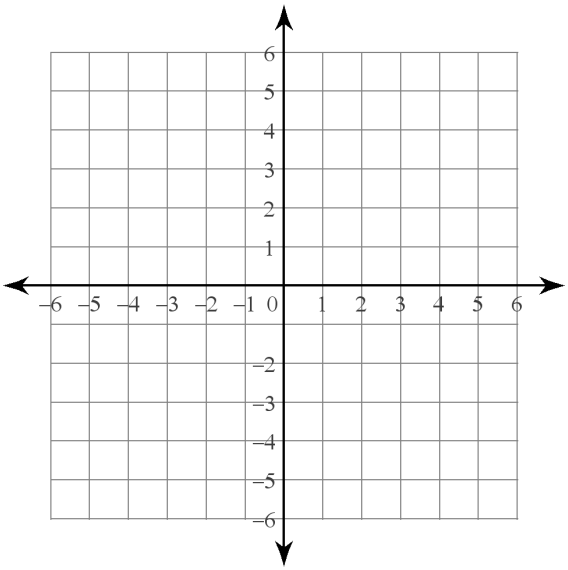


G(___,___) G'(___,___)
H(___,___) H'(___,___)
L(___,___) L'(___,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

4) Rotate ΔWCH, where W(-3,-1), C(-4,-3), and H(-1,-3), 90^o counterclockwise about the origin.

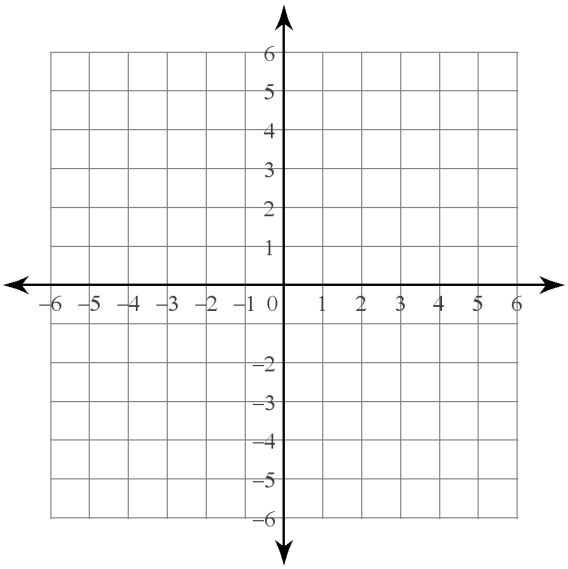


W(___,___) W'(___,___)
C(___,___) C'(___,___)
H(___,___) H'(___,___)

Describe how you did the rotation:

Describe what happened to the coordinates of each point:

4) Rotate ΔWCH, where W(-3,-1), C(-4,-3), and H(-1,-3), 270^o clockwise about the origin.



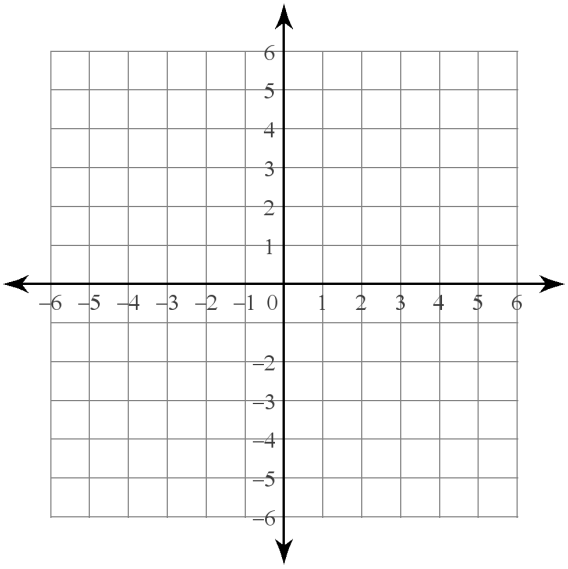
W(___,___) W'(___,___)
C(___,___) C'(___,___)
H(___,___) H'(___,___)

Describe how you did the rotation:

How does this relate to rotating ΔWCH 90^o counterclockwise about the origin?

Geometry – Rotations Name: _____

5) Rotate ΔCAT, where C(2,0), A(4,2), and T(1,3), 180^o clockwise about the point (-1,-1).

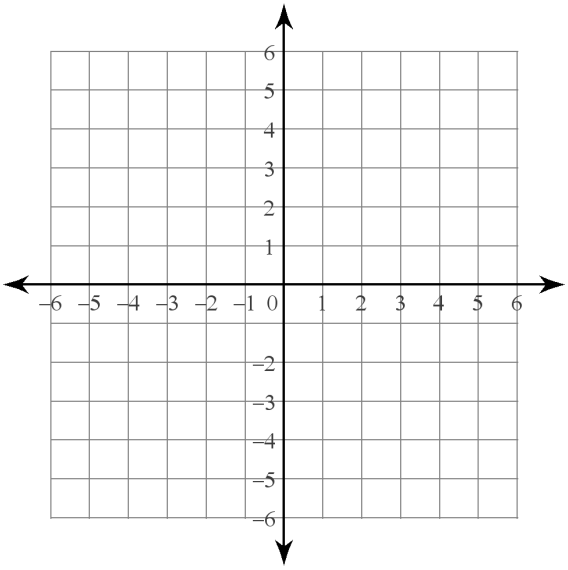


C(___,___) C'(___,___)
A(___,___) A'(___,___)
T(___,___) T'(___,___)

Describe how you did the rotation:

How is this different from rotating 180^o about the origin?

6) Rotate $\Delta BR,,$ where B(-3,-1), R(-1,1), and M(-2,3), 90^o 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:

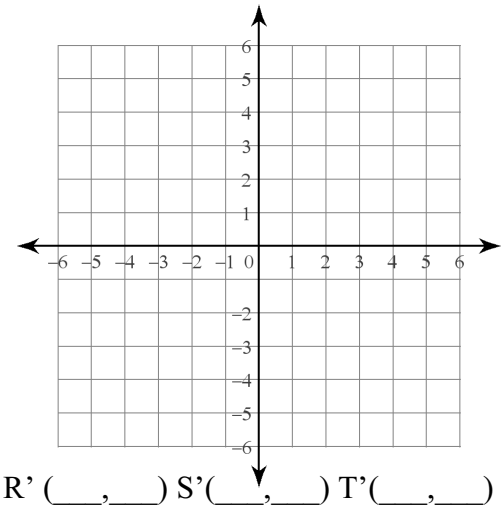
What stays the same when you do a rotation?

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

Homework Due 11/03

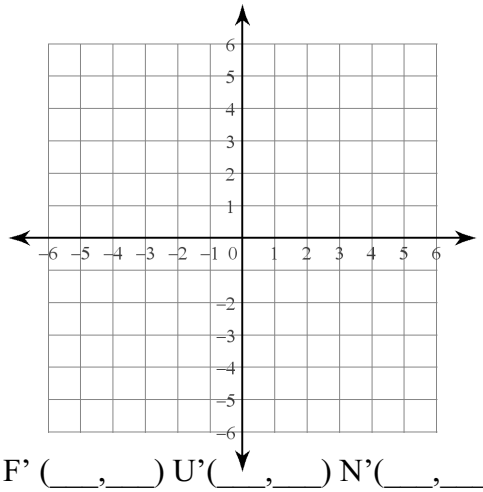
Rotate each triangle as indicated by each problem.

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



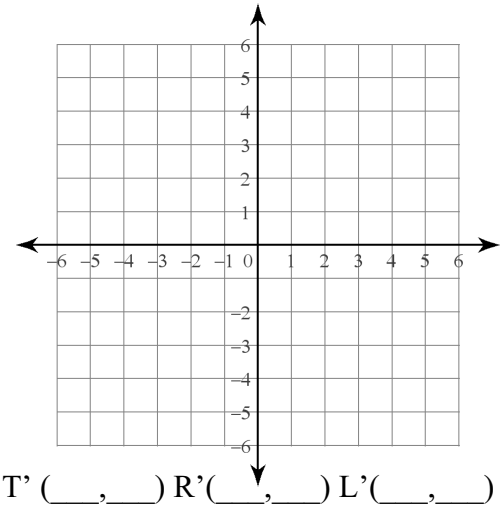
R' (___,___) S'(___,___) T'(___,___)

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



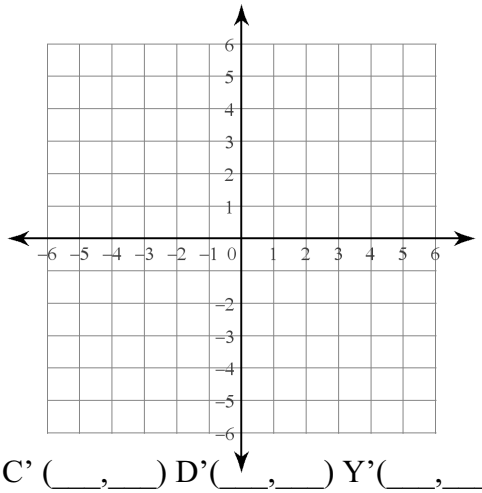
F' (___,___) U'(___,___) N'(___,___)

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



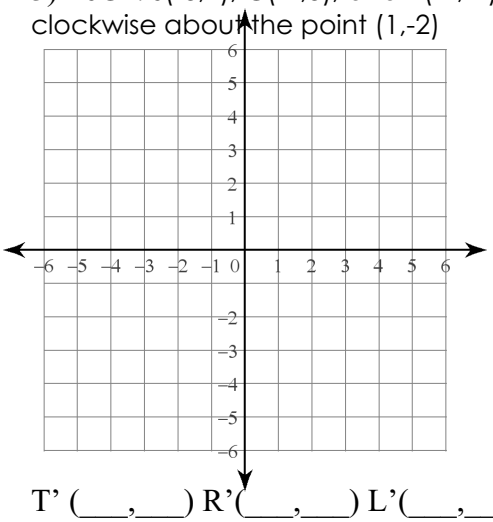
T' (___,___) R'(___,___) L'(___,___)

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



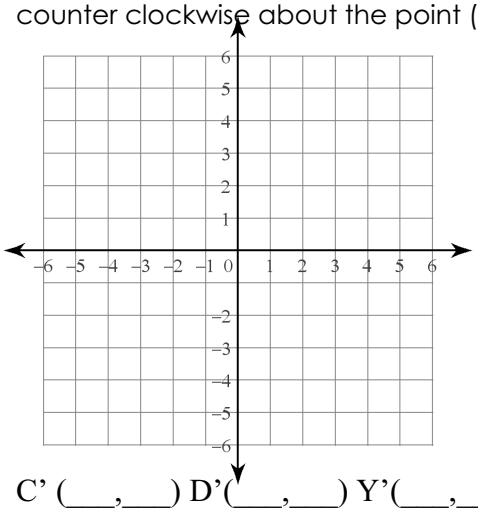
C' (___,___) D'(___,___) Y'(___,___)

3) 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'(___,___)