



# Homework

## 9.3 Rotations

Tell whether each transformation appears to be a rotation.

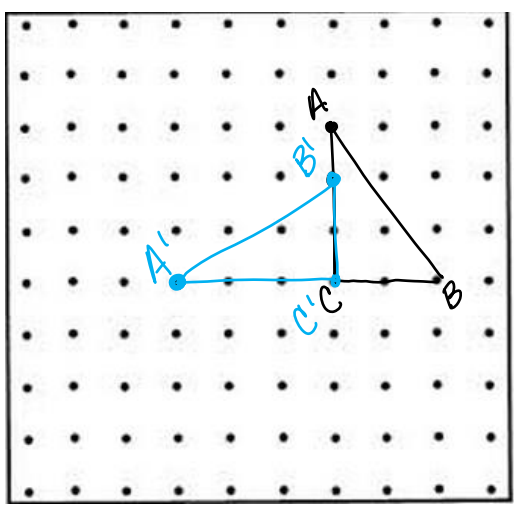
1.  yes

2.  NO

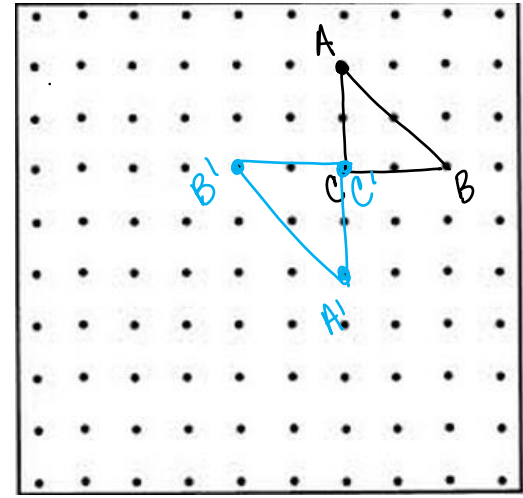
3.  NO

4.  NO

5. Rotate around point C,  $90^\circ$

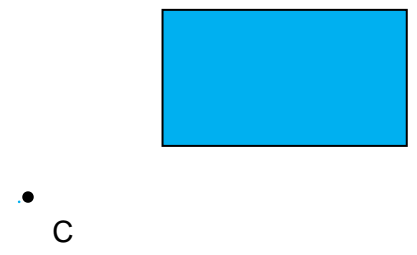
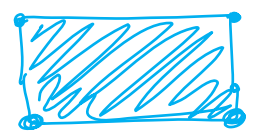
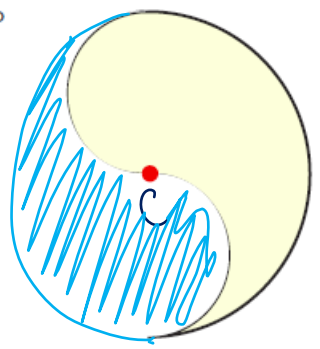


6. Rotate around point C,  $180^\circ$



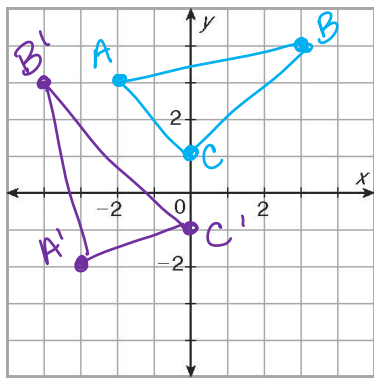
7. Rotate both figures around point C,  $180^\circ$

$180^\circ$



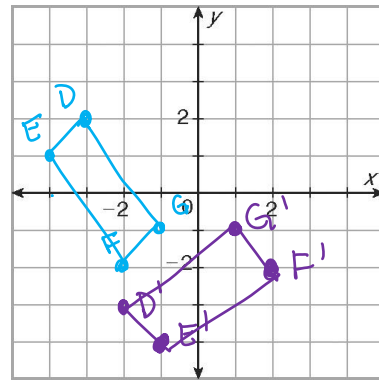
Rotate the figure with the given vertices about the origin using the given angle of rotation.

9.  $A(-2, 3), B(3, 4), C(0, 1); 90^\circ$



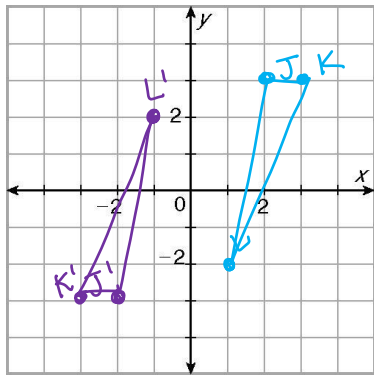
$A'(-3, -2)$   
 $B'(-4, 3)$   
 $C'(-1, 0)$

10.  $D(-3, 2), E(-4, 1), F(-2, -2), G(-1, -1); 90^\circ$



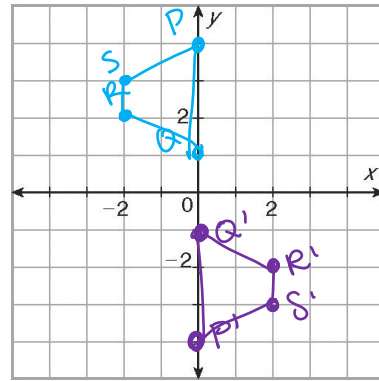
$D'(-2, -3)$   
 $E'(-1, -4)$   
 $F'(2, -2)$   
 $G'(1, -1)$

11.  $J(2, 3), K(3, 3), L(1, -2); 180^\circ$



$J'(-2, -3)$   
 $K'(-3, -3)$   
 $L'(-1, 2)$

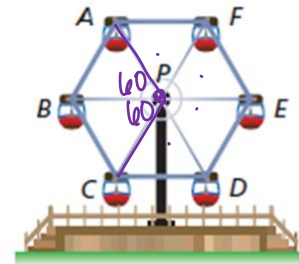
12.  $P(0, 4), Q(0, 1), R(-2, 2), S(-2, 3); 180^\circ$



$P'(0, -4)$   
 $Q'(0, -1)$   
 $R'(2, -2)$   
 $S'(2, -3)$

13. What is the image of the point  $(-2, 5)$  when it is rotated about the origin by  $90^\circ$ ?  
 (A)  $(-5, 2)$       (B)  $(5, -2)$       (C)  $(-5, -2)$       (D)  $(2, -5)$

14. The six cars of a Ferris wheel are located at the vertices of a regular hexagon. Which rotation about point  $P$  maps car  $A$  to car  $C$ ?  
 (F)  $60^\circ$       (G)  $90^\circ$       (H)  $120^\circ$       (J)  $135^\circ$



15. **Gridded Response** Under a rotation about the origin, the point  $(-3, 4)$  is mapped to the point  $(3, -4)$ . What is the measure of the angle of rotation?

$180^\circ$