

ROTATION

ANSWERS

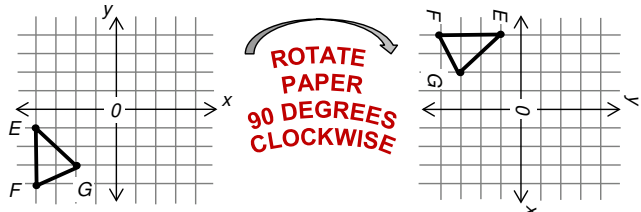
Graph the original figure. Find the new coordinates of the vertices after the given rotation about the origin. Then graph the rotation.

HELPFUL EXAMPLE

If you can not visualize the rotation in your head, the best way to see the rotation is to rotate your paper in the direction stated.

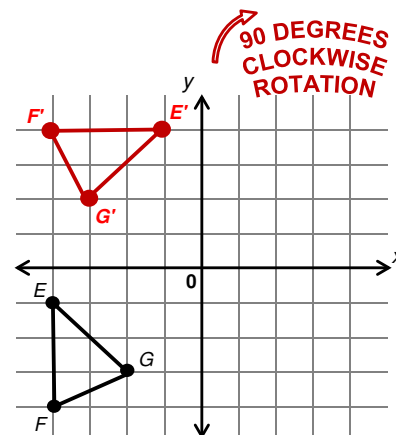
Original figure vertices: $E(-4,-1)$; $F(-4,-4)$; $G(-2,-3)$.

Find the coordinates of the vertices after a 90° clockwise rotation.



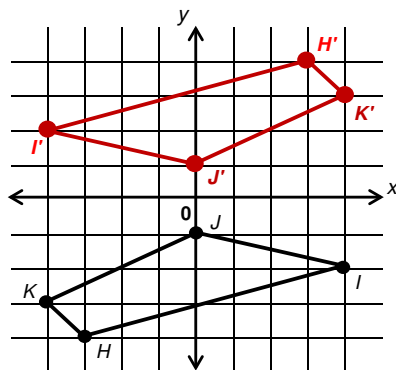
$E(-4,-1) \rightarrow E'(-1,4)$
 $F(-4,-4) \rightarrow F'(-4,4)$
 $G(-2,-3) \rightarrow G'(-3,2)$

After you rotate the paper you can see the new location of the figure and use this information to find the new vertices.

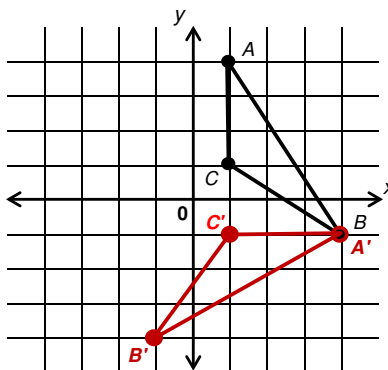


Now your turn.

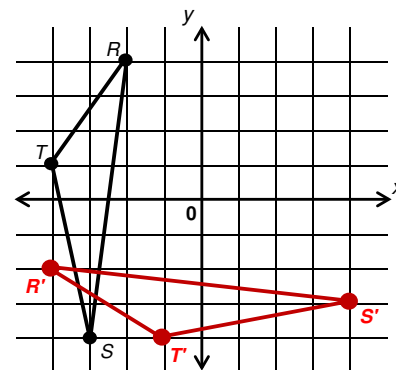
1. Polygon HJK with vertices:
 $H(-3,-4)$; $I(4,-2)$; $J(0,-1)$; $K(-4,-3)$
 180° clockwise rotation.



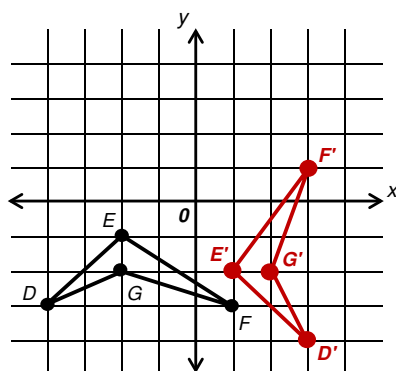
2. Polygon ABC with vertices:
 $A(1,4)$; $B(4,-1)$; $C(1,1)$
 90° clockwise rotation.



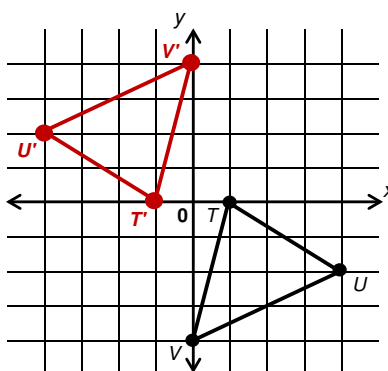
3. Polygon RST with vertices:
 $R(-2,4)$; $S(-3,-4)$; $T(-4,1)$
 90° counterclockwise rotation.



4. Polygon $DEFG$ with vertices:
 $D(-4,-3)$; $E(-2,-1)$; $F(1,-3)$; $G(-2,-2)$
 90° counterclockwise rotation.



5. Polygon TUV with vertices:
 $T(1,0)$; $U(4,-2)$; $V(0,-4)$
 180° counterclockwise rotation.



6. Polygon LMN with vertices:
 $L(-1,2)$; $M(-3,-1)$; $N(-3,3)$
 90° clockwise rotation.

