## Pop Quiz Get out a scrap sheet of paper.

1. What is the pattern to rotate $90^{\circ}$ ?
2. What is the pattern to rotate $180^{\circ}$ ?
3. What is the pattern to rotate $270^{\circ}$ ?
4. What is the pattern to reflect over the $x$-axis?
5. What is the pattern to reflect over the $y$-axis?

## Review 9.3-9.4

## No Bellwork 02/27/2012

Review 9.3
Graph the reflection of the polygon in the given line.
2. $y=-x$


Graph the polygon and its image.
5. Reflect $\left[\begin{array}{rrr}-3 & 1 & 6 \\ 4 & 7 & 2\end{array}\right]^{\text {in the } x \text {-axis. }}$


$$
\left[\begin{array}{ccc}
-3 & 1 & 6 \\
-4 & -7 & -2
\end{array}\right]
$$

The vertices of $\triangle A B C$ are $A(-2,1), B(3,4)$, and $C(3,1)$. Reflect $\triangle A B C$ in the first line. Then reflect $\triangle A^{\prime} B^{\prime} C^{\prime}$ in the second line. Graph $\triangle A^{\prime} B^{\prime} C^{\prime}$ and $\triangle A " B^{\prime} C^{\prime}$ ".
10. In $y=x$, then in $x=-2$

$A(-2,1)$
$A^{\prime}(1,-2)$
B $(3,4)$
$B^{\prime}(4,3)$
C $(3,1)$
$C^{\prime}(1,3)$

## Review 9.4

Trace the polygon and point $P$ on paper. Then draw a rotation of the polygon the given number of degrees about $\boldsymbol{P}$.
6. $135^{\circ}$


Find the image matrix that represents the rotation of the polygon about the origin. Then graph the polygon and its image.

$$
\text { 14. }\left[\begin{array}{cccc}
+3 & +2 & -2 & -1 \\
-4 & -1 & -1 & -4
\end{array}\right] ; 270^{\circ}
$$



$$
\left[\begin{array}{rrrr}
4 & -1 & -1 & -4 \\
3 & 2 & -2 & -1
\end{array}\right]
$$

The endpoints of $C D$ are $C(2,1)$ and $D(4,5)$. Graph $C^{\prime} D^{\prime}$ and $C^{\prime \prime} D^{\prime \prime}$ after the given rotations.
16. Rotation: $180^{\circ}$ about the origin

Rotation: $90^{\circ}$ about $(0,-3)$


$$
\begin{aligned}
& C(2,1) \\
& D(4,5) \\
& C^{\prime}(-2,-1) \\
& D^{( }(-4,-5)
\end{aligned}
$$

## Homework Assignment

$$
\begin{array}{ll}
\text { Pg. 912-913 } & \text { \#14-22 } \\
\text { Pg. 637-638 } & \# 10-14
\end{array}
$$

## Review 9.3-9.4



