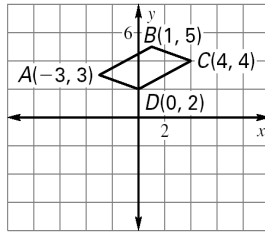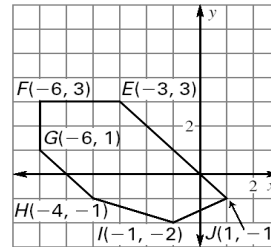Name_____Date_____

Practice C
For use with pages 588-596

Graph the reflection of the polygon in the given line.
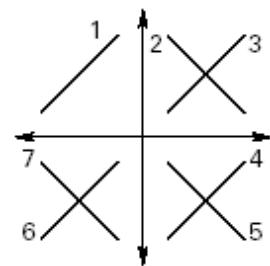
1. *x*-axis

2. *y = -x*

Find the coordinates of the image without using a coordinate plane.

3. $M(3, 4)$ reflected in the line $y = 1$.

4. $N(-2, 2)$ reflected in the line $y = -1$.

5. $P(-2, 3)$ reflected in the line $x = -3$.
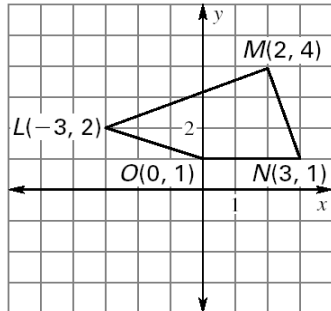
6. $Q(5, -2)$ reflected in the line $x = 3$.

Use the diagram to name the image of Segment 1 after the reflection.

7. Reflection in the *x*-axis

8. Reflection in the *y*-axis

9. Reflection in the line $y = x$

10. Reflection in the line $y = -x$

11. Reflection in the y-axis, followed by a reflection in the *x*-axis

12. Reflection in the *x*-axis, followed by a reflection in the *y*-axis
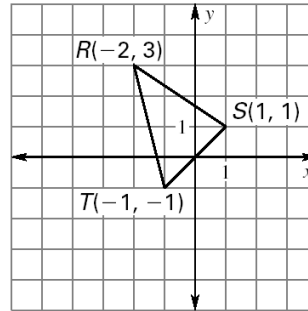
Write a matrix for the polygon. Then use matrix multiplication to find the image matrix that represents the polygon after a reflection in the given line
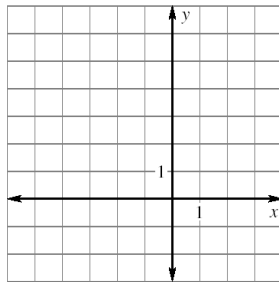
13. x-axis

$M(2, 4)$
$L(-3, 2)$
$O(0, 1)$ $N(3, 1)$
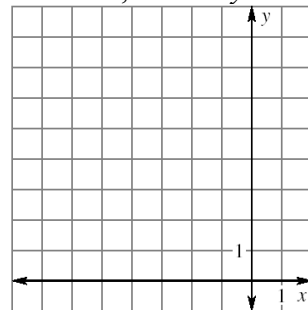
14. y-axis

$R(-2, 3)$
$S(1, 1)$
$T(-1, -1)$

The vertices of $\triangle ABC$ are $A(-4. 4)$, $B(0, 7)$, and $C(-1, 3)$. Reflect $\triangle ABC$ in the first line. Then reflect $\triangle A'B'C$ in the second line. Graph $\triangle A'B'C$ and $\triangle A''B''C''$.

15. In $y = 4$, then in $x = -1$

16. In $x = -3$, then in $y = 5$

17. Algebra The line $y = 0.5x - 4$ is reflected in the line $y = -2$. What is the equation of the image.