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## LESSON 9.3

practice B
For use with pages 588-596
Graph the reflection of the polygon in the given line.

2. $y=-x$

2. $y=1$

4. $y=x$


Use matrix multiplication to find the image. Graph the polygon and its image.
5. Reflect $\left[\begin{array}{rrr}-3 & 1 & 6 \\ 4 & 7 & 2\end{array}\right] \quad$ in the $x$-axis.
6. Reflect $\left[\begin{array}{rrrr}2 & 5 & 7 & 1 \\ 6 & 4 & -5 & -3\end{array}\right]$ in the $y$-axis

|  |  |  |  | $A^{y}$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | -2 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 2 | 2 |  |  | $x$ |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |



Write a matrix for the polygon. Then find the image matrix that represents the polygon after a reflection in the given line.
7. $x$-axis

8. $y$-axis


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 $\triangle A^{\prime \prime} B^{\prime}{ }^{\prime} C^{\prime \prime}$.
9. In $y=1$, then in $y=-2$

10. In $y=x$, then in $x=-2$

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


