- 1) Suppose the matrix $\begin{bmatrix} 1 & 0 \\ 2 & 1 \end{bmatrix}$ is multiplied by another matrix, such as for instance $\begin{bmatrix} 1 & 0 \\ 2 & 1 \end{bmatrix} \cdot \begin{bmatrix} 10 & 6 \\ 5 & 8 \end{bmatrix}$. Describe in a single sentence, phrase, or mathematical expression what occurs during this multiplication (without referencing matrix multiplication or the specific example given).
- 2) Find the inverse of the matrix below.

$$\begin{bmatrix} 2 & 4 & 0 \\ 0 & 1 & 2 \\ 0 & 1 & 3 \end{bmatrix}$$