

Name:

For each of the following matrices, either compute its inverse or state that there is no inverse. In both matrices, a is a non-zero constant.

1.

$$\begin{pmatrix} 1 & a & 0 & 0 \\ 0 & 1 & -a & 0 \\ 0 & 0 & 1 & a \\ 0 & 0 & 0 & 1 \end{pmatrix}$$

2.

$$\begin{pmatrix} a & 4 & 3 \\ 0 & 2 & 1 \\ -a & -2 & -2 \end{pmatrix}$$