Name:

1. Use the Subspace Test to determine which of the sets are subspaces of M_{22}.

   Recall that M_{22} is the set of all 2×2 matrices of real numbers.

   (a) All matrices of the form $\begin{bmatrix} a & 0 \\ 0 & b \end{bmatrix}$.

   (b) All matrices of the form $\begin{bmatrix} a & 1 \\ 1 & b \end{bmatrix}$.