

Math 54 Quiz 15  
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Name:

1. Determine if the matrix

$$A = \begin{pmatrix} 1 & 1 & 1 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{pmatrix}$$

is diagonalizable, and if it is, find an invertible matrix  $S$  and a diagonal matrix  $D$  such that  $A = SDS^{-1}$ .