

Name: _____

R. Hammack

Score: _____

Directions: Please answer all questions in the space provided. Use of calculators or any form of electronic communication device is strictly forbidden on this quiz.

1. Suppose A is a square matrix, and $A^2 = A$.
What are the possible values for $\det(A)$? Explain.

2. Find all values of a that make $\begin{bmatrix} a & a & 0 \\ a^2 & 2 & a \\ 0 & a & a \end{bmatrix}$ singular.