

Name \_\_\_\_\_

Mathematics 205: Linear Algebra  
Fall Semester 2004

David Haines

Quiz #12

October 4

Suppose  $A = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{bmatrix}$ ,  $B = \begin{bmatrix} 4 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$ , and  $C = \begin{bmatrix} 1 & 4 & 2 \\ 0 & 3 & -2 \\ 1 & 1 & 4 \end{bmatrix}$ .

Determine which of A, B, and C are invertible. Use as few calculations as possible. Justify your answers.

A

B

C