

Math 304, Section 5 — Quiz 3 – February 8

Name: _____

1. Suppose M is an 3×4 matrix and we consider the matrix N resulting from the elementary row operation, “add 2 times row 3 to row 2”. What is the matrix E such that $EM = N$?

2. Define elementary matrices E and F by

$$E = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 1 \end{bmatrix} \quad F = \begin{bmatrix} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$$

Find E^{-1} and F^{-1} .