2.2: Matrix inversion

Matrix multiplication is different from regular number multiplication.

For
$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$
 and $D = \begin{bmatrix} 2 & 0 \\ 0 & -1 \end{bmatrix}$ calculate:
(a) $AD = \begin{bmatrix} & & \\ &$

- (c) Find a matrix C so that AC = CA. $C = \begin{bmatrix} \\ \\ \\ \end{bmatrix}$
- (d) Find a matrix I so that AI = IA = A.

$$I =$$

(e) Find a matrix E so that DE = ED = IE =

(f) List 10 ways to know if a matrix B could have an "E" such that BE = EB = I.

MA322-001 Feb 12 Quiz

Name:

2.1.1(HW2.1#11) Find a matrix *B* so that DB = BD where $D = \begin{bmatrix} 5 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 2 \end{bmatrix}$

$$B =$$

2.1.2 (HW2.1#10) Find a matrix X so that AX = 0 where $A = \begin{bmatrix} 3 & -6 \\ -2 & 4 \end{bmatrix}$



2.2.1 Can there be a matrix E such that EA = I? (If so, find E; if not explain why not.)

2.2.2 Can there be a matrix E such that ED = I? (If so, find E; if not explain why not.)