$\begin{tabular}{ll} University\ of\ Lethbridge \\ Department\ of\ Mathematics\ and\ Computer\ Science \\ \end{tabular}$

MATH 1410 - Tutorial #9

Wednesday, March 7

Additional practice: (do not submit).

1. Determine the inverse of the following matrices, if possible:

(a)
$$\begin{bmatrix} 4 & -3 \\ -2 & 7 \end{bmatrix}$$

(c)
$$\begin{bmatrix} 2 & -6 \\ -1 & 3 \end{bmatrix}$$

(b)
$$\begin{bmatrix} 1 & 0 & 3 \\ -2 & 1 & 4 \\ 3 & 2 & -2 \end{bmatrix}$$

(d)
$$\begin{bmatrix} 2 & -1 & 4 \\ 0 & 3 & -5 \\ 4 & 1 & 3 \end{bmatrix}$$

(a) Let
$$A = \begin{bmatrix} 1 & -1 & 4 \\ -2 & 3 & -5 \\ 1 & 1 & 9 \end{bmatrix}$$
.

i. Compute A^{-1} .

ii. Solve for X, if
$$AX + \begin{bmatrix} 2 & -3 \\ -1 & -5 \\ 4 & 2 \end{bmatrix} = \begin{bmatrix} 1 & 0 \\ 4 & -3 \\ -2 & 1 \end{bmatrix}$$