ECO 134: Worksheet 4

1. Consider the matrix below:

$A=\left[\begin{matrix}1&0&4\\-1&1&-1\\-1&0&-3\end{matrix}\right]$

Use elementary row operations to find the echelon matrix of A.

1. Given the matrix

$A=\left[\begin{matrix}1&0&0\\1&2&0\\1&2&3\end{matrix}\right]$

Find the determinant of $A. $

1. Find the determinant of the matrix below. Expand along row 2:

$\left[\begin{matrix}-18&-9&-12\\4&11&-1\\5&13&-8\end{matrix}\right] $

1. Find the rank of the following matrices:

$E=\left[\begin{matrix}1&2&1\\-1&3&4\\2&-1&-3\end{matrix}\right]$

$$A=\left[\begin{matrix}1&0&2\\0&2&4\\0&2&2\end{matrix} \begin{matrix}1\\2\\1\end{matrix}\right]$$

1. Find the determinant of the following matrix. Expand along column 3.

$$\left|\begin{matrix}1&2&1\\9&5&2\\7&1&0\end{matrix}\right|$$