MAC1140 SEC29 HW 11-05-2007 10.4

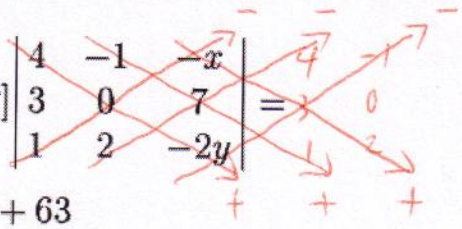
Mr. Fei Hua (fhua@math.fsu.edu)

Due: 11-07-2007

Full Name: Fei Hua Sec#: Extra Credit Attempted?

1.

[10.4.1aPT] $\begin{vmatrix} 4 & -1 & -x \\ 3 & 0 & 7 \\ 1 & 2 & -2y \end{vmatrix} =$



$= +4 \cdot 0 \cdot (-2y) + (-1) \cdot 7 \cdot 1 + (-x) \cdot 3 \cdot 2 - 1 \cdot 0 \cdot (-x) - 2 \cdot 7 \cdot 4 - (-2y) \cdot 3 \cdot (-1)$

$= 0 - 7 - 6x$

$0 - 56 - 6y$

$= -6x - 6y - 63$

- ○ $6x + 6y + 63$
- ○ $-2x - 2y - 21$
- ● $-6x - 6y - 63$
- ○ $2x + 2y + 21$

2.

[10.4.2aPT]Select the solution given by Cramer's rule for the following system, where

$D = \begin{vmatrix} 5 & -2 & 3 \\ 3 & 1 & -2 \\ 1 & -2 & 3 \end{vmatrix}$ $A = \begin{vmatrix} -2 & -2 & 3 \\ 3 & 1 & -2 \\ -1 & -2 & 3 \end{vmatrix}$ $B = \begin{vmatrix} 5 & -2 & 3 \\ 3 & 3 & -2 \\ 1 & -1 & 3 \end{vmatrix}$ $C = \begin{vmatrix} 5 & -2 & -2 \\ 3 & 1 & 3 \\ 1 & -2 & -1 \end{vmatrix}$

Cramer's rule gives.

$$\begin{cases} 5x - 2y + 3z = -2 \\ 3x + y - 2z = 3 \\ x - 2y + 3z = -1 \end{cases}$$

$x = \frac{A}{D}$

$y = \frac{B}{D}$

$z = \frac{C}{D}$.

- ○ $x = D/A$
- ● $x = A/D$
- ○ None of these
- ○ $x = D/C$
- ○ $x = C/D$