Section 2.2 selected answers cont.

.5 $\begin{vmatrix} 0 & 3 & 1 \\ 1 & 1 & 2 \\ 3 & 2 & 4 \end{vmatrix} = (-1)\begin{vmatrix} 1 & 1 & 2 \\ 0 & 3 & 1 \\ 3 & 2 & 4 \end{vmatrix}$ interchange

$= (-1)\begin{vmatrix} 1 & 1 & 2 \\ 0 & 3 & 1 \\ 0 & -1 & -2 \end{vmatrix} -3R_1 + R_3$

$= (-1)(3)\begin{vmatrix} 1 & 1 & 2 \\ 0 & 1 & 1/3 \\ 0 & -1 & -2 \end{vmatrix} 1/3 R_2$

$= -3\begin{vmatrix} 1 & 1 & 2 \\ 0 & 1 & 1/3 \\ 0 & 0 & -5/3 \end{vmatrix} R_2 + R_3$

$= (-3)(1)(1)(-5/3) = 5$

6. $\begin{vmatrix} 1 & -3 & 0 \\ -2 & 4 & 1 \\ 5 & -2 & 2 \end{vmatrix} = -17$