Practice for Geometry Proof and Systems of Equations
Assessment Standard 1.1 – Solutions

1. $\begin{pmatrix} 1 & -1 & 0 & | & 5 \\ 0 & 3 & 1 & | & -7 \\ 1 & -2 & -1 & | & 8 \end{pmatrix}$

$\begin{pmatrix} 1 & -1 & 0 & | & 5 \\ 0 & 3 & 1 & | & -7 \\ 0 & -1 & -1 & | & 3 \end{pmatrix}$

$\begin{pmatrix} 1 & -1 & 0 & | & 5 \\ 0 & 3 & 1 & | & -7 \\ 0 & 0 & -2 & | & 2 \end{pmatrix}$

$z = $ -1, $y = $ -2, $x = 3$

2. (a) $\begin{pmatrix} -16 - b & 13 \\ 9 & 11 + 2c \end{pmatrix}$

(b) $\begin{pmatrix} -2b - 2 & 4b - 2c \\ 6 & 4c - 4 \end{pmatrix}$

3. $\det D = 1 \begin{vmatrix} 3 & 1 \\ -2 & -1 \end{vmatrix} - -1 \begin{vmatrix} 0 & 1 \\ 1 & -1 \end{vmatrix} + 0 = 1(-3 + 2) + 1(0 - 1) = -2$

4. (a) $\frac{1}{-2e-4} \begin{pmatrix} e & -4 \\ -1 & -2 \end{pmatrix}$

(b) $\det F = 0$
$f(0 - 6) - 4(-1 - 18) + 5(2 - 0) = 0$
-6$f = $ -86
$f = \frac{43}{3}$