Section 16.1

(5)

$x = -2$

$2y = 10 \Rightarrow y = 5$

$z = -9$

$\frac{r}{4} = 12 \Rightarrow r = 48$

$-s = -4 \Rightarrow s = 4$

$-5t = 5 \Rightarrow t = -1$

(9) Impossible to solve for the variables.
Matrices have different sizes.

(11) $\begin{bmatrix} 2 & 3 \\ -5 & 4 \end{bmatrix} + \begin{bmatrix} -1 & 7 \\ 5 & -2 \end{bmatrix}$

$= \begin{bmatrix} 1 & 10 \\ 0 & 2 \end{bmatrix}$

(13) $\begin{bmatrix} 50 & -82 \\ -34 & 57 \\ -15 & 62 \end{bmatrix} + \begin{bmatrix} -55 & 82 \\ 45 & 14 \\ 26 & -67 \end{bmatrix}$

$= \begin{bmatrix} -5 & 0 \\ 11 & 71 \\ 11 & -5 \end{bmatrix}$

(19) $2A+B = 2\begin{bmatrix} -1 & 4 & -7 \\ 2 & -6 & 11 \end{bmatrix} + \begin{bmatrix} 7 & 9 & -6 \\ 4 & -1 & -8 \end{bmatrix}$

$= \begin{bmatrix} -2 & 8 & -14 \\ 4 & -12 & 22 \end{bmatrix} + \begin{bmatrix} 7 & 9 & -6 \\ 4 & -1 & -8 \end{bmatrix}$

$= \begin{bmatrix} 5 & 17 & -20 \\ 8 & -13 & 14 \end{bmatrix}$

(21) $A - 2B = \begin{bmatrix} -1 & 4 & -7 \\ 2 & -6 & 11 \end{bmatrix} - 2\begin{bmatrix} 7 & 9 & -6 \\ 4 & -1 & -8 \end{bmatrix}$

$= \begin{bmatrix} -1 & 4 & -7 \\ 2 & -6 & 11 \end{bmatrix} + \begin{bmatrix} -14 & -18 & 12 \\ -8 & 2 & 16 \end{bmatrix}$

$= \begin{bmatrix} -15 & -14 & 5 \\ -6 & -4 & 27 \end{bmatrix}$

(25) $-C - A$ is undefined because A and C have different sizes.