

# Answer Key

## Practice B

1. No inverse exists. 2. Inverse exists.

3. Inverse exists. 4.  $\begin{bmatrix} \frac{2}{11} & -\frac{5}{11} \\ \frac{1}{11} & \frac{3}{11} \end{bmatrix}$

5.  $\begin{bmatrix} 1 & 0 \\ -\frac{1}{2} & \frac{1}{4} \end{bmatrix}$  6.  $\begin{bmatrix} -\frac{1}{17} & \frac{5}{17} \\ \frac{3}{17} & \frac{2}{17} \end{bmatrix}$  7.  $\begin{bmatrix} -1 & -1 \\ -\frac{5}{3} & -2 \end{bmatrix}$

8. The matrix does not have an inverse.

9.  $\begin{bmatrix} 2 & 3 \\ -3 & -4 \end{bmatrix}$  10.  $\begin{bmatrix} \frac{1}{2} & -\frac{1}{2} & \frac{1}{2} \\ 0 & \frac{1}{4} & -\frac{1}{8} \\ 0 & 0 & \frac{1}{2} \end{bmatrix}$

11.  $\begin{bmatrix} \frac{1}{5} & -1 & \frac{2}{5} \\ -\frac{2}{5} & 2 & \frac{1}{5} \\ \frac{2}{5} & -1 & -\frac{1}{5} \end{bmatrix}$  12.  $\begin{bmatrix} -\frac{7}{4} & -\frac{1}{2} & \frac{11}{2} \\ -1 & 0 & 3 \\ \frac{1}{2} & 0 & -1 \end{bmatrix}$

13.  $\begin{bmatrix} 3 & 1 \\ -2 & 5 \end{bmatrix}$  14.  $\begin{bmatrix} 46 & -11 & 14 \\ -25 & 8 & -8 \end{bmatrix}$

15.  $\begin{bmatrix} 1 & -3 \\ 0 & 1 \end{bmatrix}$  16.  $\begin{bmatrix} \frac{19}{10} & -\frac{3}{10} \\ -\frac{7}{10} & \frac{9}{10} \end{bmatrix}$

17.  $[13 \ 5]$ ,  $[5 \ 20]$ ,  $[0 \ 13]$ ,  $[5 \ 0]$ ,  $[1 \ 20]$ ,  
 $[0 \ 19]$ ,  $[21 \ 14]$ ,  $[19 \ 5]$ ,  $[20 \ 0]$

18.  $[75 \ -44]$ ,  $[65 \ -35]$ ,  $[26 \ -13]$ ,  
 $[25 \ -15]$ ,  $[45 \ -23]$ ,  $[38 \ -19]$ ,  
 $[133 \ -77]$ ,  $[105 \ -62]$ ,  $[100 \ -60]$

19. 75, -44, 65, -35, 26, -13, 25, -15, 45,  
-23, 38, -19, 133, -77, 105, -62, 100, -60

20.  $\begin{bmatrix} -1 & 3 \\ -2 & 5 \end{bmatrix}$  21. NOT TONIGHT