

Practice B

For use with pages 199–206

Perform the indicated operation, if possible. If not possible, state the reason.

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

2. $\begin{bmatrix} 1 & 3 \\ -2 & 5 \\ 2 & 4 \end{bmatrix} + \begin{bmatrix} 4 & 9 \\ 7 & 1 \\ -2 & 6 \end{bmatrix}$

3. $\begin{bmatrix} 4 & 3 & -2 \\ 1 & 5 & 4 \\ 2 & 7 & 6 \end{bmatrix} - \begin{bmatrix} 1 & 2 & 5 \\ 4 & -1 & 3 \\ 6 & 7 & 9 \end{bmatrix}$

4. $[-3 \ 0 \ 10 \ -8] + \begin{bmatrix} -1 \\ 7 \\ -11 \end{bmatrix}$

5. $\begin{bmatrix} -8 & 3 & 9 \\ 4 & 12 & -1 \\ -4 & -6 & 8 \end{bmatrix} + \begin{bmatrix} -4 & -1 & 6 \\ 12 & -12 & 10 \\ -5 & -7 & -11 \end{bmatrix}$

6. $\begin{bmatrix} 7 & -2 & -5 \\ -1 & -7 & 3 \\ 8 & -10 & -13 \end{bmatrix} - \begin{bmatrix} -1 & -3 & 4 \\ -10 & -11 & 8 \\ 8 & -10 & -13 \end{bmatrix}$

7. $[6 \ -2 \ 1 \ 8] + [7 \ 5 \ -3 \ 2]$

Perform the indicated operation.

8. $3 \begin{bmatrix} 1 & 4 \\ -3 & 2 \end{bmatrix}$

9. $-2 \begin{bmatrix} -\frac{1}{2} & 0 & 2 \\ 3 & 4 & -1 \\ -2 & \frac{3}{2} & 5 \end{bmatrix}$

10. $-5 \begin{bmatrix} 1 & 4 & -2 & 3 \\ 0 & -5 & 1 & 4 \end{bmatrix}$

Perform the indicated operations.

11. $\left(\begin{bmatrix} 1 & 2 \\ 0 & -1 \end{bmatrix} - \begin{bmatrix} -3 & -4 \\ 2 & 5 \end{bmatrix} \right) + \begin{bmatrix} 2 & 5 \\ 3 & 9 \end{bmatrix}$

12. $\begin{bmatrix} 1 & 3 \\ 2 & 0 \\ 5 & 6 \end{bmatrix} - \left(\begin{bmatrix} 9 & 2 \\ 4 & -1 \\ -3 & 1 \end{bmatrix} + \begin{bmatrix} -7 & 3 \\ 0 & 1 \\ 5 & 3 \end{bmatrix} \right)$

13. $3 \begin{bmatrix} 1 & -4 \\ 3 & 8 \end{bmatrix} + 5 \begin{bmatrix} -1 & 0 \\ 2 & -4 \end{bmatrix}$

14. $2 \left(\begin{bmatrix} 2 & 8 & -1 \\ 0 & 2 & 0 \end{bmatrix} - \begin{bmatrix} 2 & 6 & 3 \\ -1 & -1 & 3 \end{bmatrix} \right)$

Health Club Membership In Exercises 15 and 16, use the following information.

A health club offers three different membership plans. With Plan A, you can use all club facilities: the pool, fitness center, and racket club. With Plan B, you can use the pool and fitness center. With Plan C, you can only use the racket club facilities. The matrices below show the annual cost for a Single and a Family membership for the years 1998 through 2000.

	1998		1999		2000	
	Single	Family	Single	Family	Single	Family
Plan A	336	624	384	720	420	792
Plan B	228	528	312	576	360	672
Plan C	216	385	240	432	288	528

15. You purchased a Single Plan A membership in 1998, a Family Plan B membership in 1999, and a Family Plan A Membership in 2000. How much did you spend for your membership over the three years?

16. You purchased a Family Plan C membership in 1998, and upgraded to the next highest plan each year. How much did you spend for your membership over the three years?