

# Answers

## Lesson Check

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

$$2. \begin{bmatrix} 1 & -9 & 8 \\ -3 & -1 & 8 \end{bmatrix}$$

$$3. \begin{bmatrix} -3 & 4 \\ -5 & 11 \end{bmatrix}$$

$$4. \begin{bmatrix} 6 & 10 \\ 13 & -4 \end{bmatrix}$$

5. Yes; the elements in each of the corresponding positions are equal.

6. The elements were not subtracted.

The correct answer is

$$\begin{bmatrix} 6 \\ 5 \end{bmatrix} - \begin{bmatrix} 3 \\ 7 \end{bmatrix} = \begin{bmatrix} 3 \\ -2 \end{bmatrix}$$

## Practice and Problem-Solving Exercises

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

$$8. \begin{bmatrix} 0 & -2 & 0 \\ -2 & 0 & -2 \end{bmatrix}$$

$$9. \begin{bmatrix} 3.9 & -2.3 \\ -0.6 & 9.1 \end{bmatrix}$$

$$10. \begin{bmatrix} -6.8 & 1.3 \\ -2.1 & -1 \end{bmatrix}$$

$$11. \begin{bmatrix} 4 & -8 \\ -1 & -1 \\ 11 & 1 \end{bmatrix}$$

$$12. \begin{bmatrix} -9 & -2 & 12 \\ -15 & 11 & -7 \end{bmatrix}$$

$$13. \begin{bmatrix} 6 & 2 \\ -1 & 3 \end{bmatrix}$$

$$14. \begin{bmatrix} -4 & -1 \\ -1 & -2 \end{bmatrix}$$

$$15. \begin{bmatrix} 2 & -3 & 4 \\ 5 & 6 & -7 \end{bmatrix}$$

$$16. \begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$$

$$17. x = -2, y = 3, z = 1$$

$$18. x = 2, t = \frac{1}{10}$$

20.  $B$  and  $D$  cannot be added because they do not have the same dimensions.

$$21. \begin{bmatrix} 6 & 3 \\ -3 & 3 \end{bmatrix}$$

$$22. \begin{bmatrix} -6 & -3 \\ -4 & -2 \\ -2 & 5 \end{bmatrix}$$

$$23. \begin{bmatrix} -4 & 1 \\ -3 & -1 \end{bmatrix}$$

24.

	Plant 1	
	Plastic	Rubber
1-color	1000	1400
3-color	2600	3800

	Plant 2	
	Plastic	Rubber
1-color	1200	3600
3-color	1800	4800

$$28. a = 2, b = \frac{9}{4}, c = -1, d = 0, f = \frac{1}{2}, g = -4$$