Name _____ Date _____

LESSON 1.8 Practice

Determine the dimensions of the matrix.

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

2. $\begin{bmatrix} 5 & 0 & 1 \\ 9 & 1 & 7 \end{bmatrix}$

3. $\begin{bmatrix} 6 & 2 & -2 & 8 & 1 \\ 2 & 6 & 7 & 5 & 0 \\ 1 & 1 & -4 & 3 & 0 \\ 7 & 0 & 9 & 4 & -4 \end{bmatrix}$

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

Tell whether the matrices are *equal* or *not equal*.

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

6. $\begin{bmatrix} 2 & 2 \end{bmatrix}, \begin{bmatrix} 2 \\ 2 \end{bmatrix}$

7. $\begin{bmatrix} 4 & 2 \\ 3 & -1 \end{bmatrix}, \begin{bmatrix} 4 & \sqrt{4} \\ \frac{3}{1} & \frac{-4}{4} \end{bmatrix}$

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

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

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

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

11. $\begin{bmatrix} 9 & 4 \end{bmatrix} + \begin{bmatrix} 1 \\ 1 \end{bmatrix}$

12. $\begin{bmatrix} 3 & 2 \\ 5 & 6 \end{bmatrix} - \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$

13. $\begin{bmatrix} 8 & 4 \\ 9 & -5 \end{bmatrix} - \begin{bmatrix} -1 & 5 \\ 7 & 2 \end{bmatrix}$

14. $\begin{bmatrix} 5 \\ 8 \end{bmatrix} - \begin{bmatrix} 3 \\ 7 \end{bmatrix}$

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

16. $\begin{bmatrix} 4 & 0 \\ -3 & 6 \end{bmatrix} + \begin{bmatrix} -2 & 3 \\ 0 & -8 \end{bmatrix}$

Name _____ Date _____

LESSON 1.8 **Practice** *continued*

Perform the indicated operation.

17. $2\begin{bmatrix} 1 & 2 \\ 3 & 1 \end{bmatrix}$

18. $-2\begin{bmatrix} -3 \\ 2 \\ -1 \end{bmatrix}$

19. $-6\begin{bmatrix} 2 & 0 & -1 \\ 0 & 4 & 8 \\ -1 & 8 & -2 \end{bmatrix}$

Solve the matrix equation for x and y.

20. $\begin{bmatrix} x & 2 \\ 2 & y \end{bmatrix} = \begin{bmatrix} 3 & 2 \\ 2 & 1 \end{bmatrix}$

21. $[5x \quad -9] = [-20 \quad -3y]$

22. $\begin{bmatrix} 3 \\ 2x \\ 5 \end{bmatrix} = \begin{bmatrix} 6y \\ 6 \\ 5 \end{bmatrix}$

23. **Basketball** Team A scored 4 three-point baskets, 22 two-point baskets, and 7 one-point baskets in a game versus team B. Team B scored 8 three-point baskets, 18 two-point baskets and 12 one-point baskets in the game. Write a 2×3 matrix that organizes this data. Let team A be row 1, team B be row 2, three-pointers be column 1, two-pointers be column 2, and one-pointers be column 3.