

**Algebra 2A**  
**Practice Quiz on 12-1 & 12-2**

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hr: \_\_\_\_\_

**SHOW ALL WORK**

**For #1-3, find each sum or difference if possible.**

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

1. \_\_\_\_\_

2.  $\begin{bmatrix} -12 & 24 \\ -3 & 5 \\ -1 & 10 \end{bmatrix} - \begin{bmatrix} -3 & 1 \\ 2 & -4 \\ -1 & 5 \end{bmatrix}$

2. \_\_\_\_\_

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

3. \_\_\_\_\_

**For #4-6, solve each matrix equation.**

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

4. \_\_\_\_\_

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

5. \_\_\_\_\_

6.  $X - \begin{bmatrix} -3 & 2 & -1 \\ 6 & -7 & 8 \end{bmatrix} = \begin{bmatrix} -2 & 3 & 5 \\ 1 & -3 & 7 \end{bmatrix}$

6. \_\_\_\_\_

**For #7-8, solve for x and y.**

7.  $\begin{bmatrix} -3 + 2x & 2 \\ 4 & -7y \end{bmatrix} = \begin{bmatrix} x - 4 & 2 \\ 4 & -35 \end{bmatrix}$

7. x = \_\_\_\_\_

y = \_\_\_\_\_

$$8. \begin{bmatrix} 2x & 3 \\ -3 & -7x + y \end{bmatrix} = \begin{bmatrix} 3x + 2 & 3 \\ -3 & -4x \end{bmatrix}$$

$$8. x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

**For # 9-11, using matrices A, B, and C find each product, sum, or difference.**

$$A = \begin{bmatrix} 2 & 1 \\ -3 & 0 \end{bmatrix} \quad B = \begin{bmatrix} -1 & 3 \\ 0 & 4 \end{bmatrix} \quad C = \begin{bmatrix} 5 & -2 \\ -4 & 0 \end{bmatrix}$$

$$9. \quad 3B$$

$$9. \quad \underline{\hspace{2cm}}$$

$$10. \quad B + 2C$$

$$10. \quad \underline{\hspace{2cm}}$$

$$11. \quad 2C - AB$$

$$11. \quad \underline{\hspace{2cm}}$$

**For # 12-13, solve each matrix equation.**

$$12. \quad 3 \begin{bmatrix} 2 & 0 \\ -1 & 5 \end{bmatrix} - 2X = \begin{bmatrix} -10 & 5 \\ 0 & 17 \end{bmatrix}$$

$$12. \quad \underline{\hspace{2cm}}$$

$$13. \quad \frac{1}{2}X + \begin{bmatrix} 4 & -3 \\ 12 & 1 \end{bmatrix} = \begin{bmatrix} 2 & 1 \\ 1 & 2 \end{bmatrix}$$

$$13. \quad \underline{\hspace{2cm}}$$

**For # 14-15, find each product if possible.**

14.  $[-3 \ 5] \begin{bmatrix} -3 & 0 \\ 5 & 0 \end{bmatrix}$

14. \_\_\_\_\_

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

15. \_\_\_\_\_

16. Jimmy, Todd and Chris each sold boxes of candy for a fundraiser. Jimmy sold 3 small, 2 medium, and 3 large boxes. Todd sold 2 small, 2 medium, and 5 large boxes. Chris sold 2 small, 3 medium, and 4 large boxes. Small boxes cost \$1 each, medium boxes cost \$2 each, and large boxes cost \$3 each.

a. Write a matrix to show the number of boxes sold.

b. Write a matrix to show the cost of each size box.

c. Multiply to find the matrix showing the revenue for each person.