Math 2 Name_____

PRACTICE Quiz 10.1-10.2 Systems and Operations with Matrices

Solve each system.

1) $-5x + y - 3z = 7$
$y - 3z = -21$
$2x - y + 3z = 5$

2) $-2x - 3y - 3z = 3$
$x + 4y - 4z = 7$
$-2y - 6z = 10$

Simplify. Write "undefined" for expressions that are undefined.

3) $\begin{bmatrix} 3 & 1 \\ -6 & -2 \end{bmatrix} + \begin{bmatrix} 0 & 5 \\ -3 & -4 \end{bmatrix}$

4) $\begin{bmatrix} 1 \\ -6 + y \\ z^2 + 3 \\ -2y \end{bmatrix} - \begin{bmatrix} 5z \\ 5x \\ 3 - 2y \\ -3 \end{bmatrix}$

5) $\begin{bmatrix} 5 & 6 \\ -2 & -6 \end{bmatrix} - \left(\begin{bmatrix} 2 & -3 \\ -4 & 3 \end{bmatrix} - \begin{bmatrix} 6 & 3 \\ 6 & 6 \end{bmatrix} \right)$

6) $\begin{bmatrix} 1 & -3 \\ 1 & -3 \end{bmatrix} + \begin{bmatrix} 4 & -5 \\ 1 & 5 \end{bmatrix} - \begin{bmatrix} -3 & -6 \\ 4 & 5 \end{bmatrix}$

7) $-4\begin{bmatrix} 2 \\ -x \\ -4y \end{bmatrix}$

8) $-4\begin{bmatrix} -2y \\ 2 \\ x-2 \\ x-5 \end{bmatrix}$

9) $-3\begin{bmatrix} -4 & -2 & 6 & 0 \end{bmatrix} - \begin{bmatrix} 2 & -2 & -4 & 2 \end{bmatrix}$

10) $-5\begin{bmatrix} -1 \\ 1 \\ 0 \\ -3 \end{bmatrix} - \begin{bmatrix} -6 \\ -2 \\ -5 \\ -4 \end{bmatrix}$

Math 2 Name_____

PRACTICE Quiz 10.1-10.2 Systems and Operations with Matrices

Solve each system.

1) $-5x + y - 3z = 7$
$y - 3z = -21$
$2x - y + 3z = 5$

No solution.

2) $-2x - 3y - 3z = 3$
$x + 4y - 4z = 7$
$-2y - 6z = 10$

$\left(\frac{15}{13}, -\frac{2}{13}, -\frac{21}{13}\right)$

Simplify. Write "undefined" for expressions that are undefined.

3) $\begin{bmatrix} 3 & 1 \\ -6 & -2 \end{bmatrix} + \begin{bmatrix} 0 & 5 \\ -3 & -4 \end{bmatrix}$

$\begin{bmatrix} 3 & 6 \\ -9 & -6 \end{bmatrix}$

4) $\begin{bmatrix} 1 \\ -6 + y \\ z^2 + 3 \\ -2y \end{bmatrix} - \begin{bmatrix} 5z \\ 5x \\ 3 - 2y \\ -3 \end{bmatrix}$

$\begin{bmatrix} 1 - 5z \\ -6 + y - 5x \\ z^2 + 2y \\ -2y + 3 \end{bmatrix}$

5) $\begin{bmatrix} 5 & 6 \\ -2 & -6 \end{bmatrix} - \left(\begin{bmatrix} 2 & -3 \\ -4 & 3 \end{bmatrix} - \begin{bmatrix} 6 & 3 \\ 6 & 6 \end{bmatrix} \right)$

$\begin{bmatrix} 9 & 12 \\ 8 & -3 \end{bmatrix}$

6) $\begin{bmatrix} 1 & -3 \\ 1 & -3 \end{bmatrix} + \begin{bmatrix} 4 & -5 \\ 1 & 5 \end{bmatrix} - \begin{bmatrix} -3 & -6 \\ 4 & 5 \end{bmatrix}$

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

7) $-4\begin{bmatrix} 2 \\ -x \\ -4y \end{bmatrix}$

$\begin{bmatrix} -8 \\ 4x \\ 16y \end{bmatrix}$

8) $-4\begin{bmatrix} -2y \\ 2 \\ x-2 \\ x-5 \end{bmatrix}$

$\begin{bmatrix} 8y \\ -8 \\ -4x+8 \\ -4x+20 \end{bmatrix}$

9) $-3\begin{bmatrix} -4 & -2 & 6 & 0 \end{bmatrix} - \begin{bmatrix} 2 & -2 & -4 & 2 \end{bmatrix}$

$\begin{bmatrix} 10 & 8 & -14 & -2 \end{bmatrix}$

10) $-5\begin{bmatrix} -1 \\ 1 \\ 0 \\ -3 \end{bmatrix} - \begin{bmatrix} -6 \\ -2 \\ -5 \\ -4 \end{bmatrix}$

$\begin{bmatrix} 11 \\ -3 \\ 5 \\ 19 \end{bmatrix}$