

Name _____

Date _____

Unique Properties of Matrix Operations - Independent Practice Worksheet

What are the dimensions of matrix B?

$$1. \quad B = \begin{bmatrix} 0 \\ 0 \\ 2 \end{bmatrix} + \begin{bmatrix} 3 \\ 1 \\ 7 \end{bmatrix} = \begin{bmatrix} 3 \\ 1 \\ 9 \end{bmatrix}$$

$$2. \quad E = \begin{bmatrix} 4 \\ 0 \\ 4 \end{bmatrix} + \begin{bmatrix} 2 \\ 1 \\ 1 \end{bmatrix} + \begin{bmatrix} 5 \\ 6 \\ 0 \end{bmatrix} = \begin{bmatrix} 11 \\ 7 \\ 5 \end{bmatrix}$$

$$3. \quad Q = \begin{bmatrix} 6 \\ 2 \\ 7 \end{bmatrix} - \begin{bmatrix} 2 \\ 1 \\ 1 \end{bmatrix}$$

Is the difference defined in each set?

$$4. \quad A = \begin{bmatrix} 5 & 9 \\ 1 & 4 \end{bmatrix} - \begin{bmatrix} 6 & 0 & 3 \\ 0 & 7 & 5 \end{bmatrix}$$

$$5. \quad C = \begin{bmatrix} 2 & 7 \\ 0 & 1 \end{bmatrix} - \begin{bmatrix} 3 & 1 \\ 1 & 1 \end{bmatrix}$$

$$6. \quad D = \begin{bmatrix} 2 & 7 \\ 0 & 1 \end{bmatrix} - \begin{bmatrix} 3 & 1 \\ 1 & 1 \end{bmatrix}$$

What are the dimensions of matrix Z, N, F, G?

$$7. \quad Z = 6[5 \ 5] - [3 \ 8]$$

$$8. \quad N = 4[3 \ 3 \ 2 \ 8] - [7 \ 6 \ 6 \ 8]$$

$$9. \quad F = 2[6 \ 1 \ 6 \ 5 \ 8 \ 4] - [9 \ 5 \ 8 \ 9 \ 3 \ 2]$$

$$10. \quad G = 5[4 \ 4 \ 7] - [9 \ 2 \ 7]$$

