Advanced Functions and Modeling Name_____

Quiz 1 – Matrix Operations – Practice Quiz

Date: _____

Match the correct definition to the terms given below.

_____ Matrix	A. When performing this operation the matrices must have the same dimensions.
_____ Additive Inverse	B. A rectangular array of numbers and variables
_____ Matrix Identity	C. In most cases, this operation is not communitive.
_____ Matrix Multiplication	D. When the resulting matrix contains only zeros, we know this property has occurred.
_____ Matrix Subtraction	E. This was applied when a matrix was multiplied by another matrix and the result shows no change.

A = $\begin{bmatrix} 10 & -13 & 14 \end{bmatrix}$ B = $\begin{bmatrix} -10 & -4 \\ 4 & -9 \\ -22 & 8 \end{bmatrix}$ C = $\begin{bmatrix} 6 & -2 \\ 3 & -4 \\ -3 & 9 \end{bmatrix}$ D = $\begin{bmatrix} -2 & 6 & 0 \end{bmatrix}$

6. A + D

7. 3B

8. 2C – B

9. 3A – 2D

10. Solve for x. $\begin{bmatrix} 3 & -2 & 7 \\ 1 & 4 & 0 \end{bmatrix} + 2\begin{bmatrix} 4 & 1 & 5 \\ -7 & -4 & 3x \end{bmatrix} = \begin{bmatrix} 7 & -1 & 17 \\ -6 & 0 & 60 \end{bmatrix}$

11. Solve for y. $\begin{bmatrix} 8 & -2 & 0 \\ 3 & -5y & -3 \end{bmatrix}\begin{bmatrix} 1 \\ -5 \\ 2 \end{bmatrix} = \begin{bmatrix} 18 \\ 47 \end{bmatrix}$