MATH 280 Discrete Mathematical Structures Assignment #6   Name _____

The point values for each question appear within []. The total number of points for this assignment is 18.

Consider the following matrices:

$$A = \begin{pmatrix} 4 & 2 \\ -1 & 0 \\ 6 & -2 \end{pmatrix} \quad B = \begin{pmatrix} 1 & -3 \\ 4 & 5 \\ -1 & -2 \end{pmatrix} \quad C = \begin{pmatrix} 1 & 2 & 5 \\ -2 & -1 & 2 \end{pmatrix} \quad D = \begin{pmatrix} 1 & 2 \\ -1 & 5 \end{pmatrix}$$

[1]   1. What is the order of A?

[2]   2. Compute $A + B$

[2]   3. Compute $5A$

[2]   4. Compute $-A$

[2]   5. Compute AC

[2]   6. Compute DC

[2]   7. Compute D^2

[2]   8. Compute $B - 6A$

[3]   9. Let A represent any 2×2 matrix. Show that $I_2A = A = AI_2$, where I_2 is the 2×2 identity matrix.