

Worksheet: Matrices 1
Mr. Chvatal

Name: _____ **Date:** _____

All other work must be done by hand.

Questions 1-6 refer to the matrices below.

$$A = \begin{pmatrix} 2 & 7 \\ -6 & 3 \\ 0 & 5 \end{pmatrix} \quad B = \begin{pmatrix} -1 & 4 & 8 \\ -7 & 5 & 1 \end{pmatrix} \quad C = \begin{pmatrix} 6 & 2 & -4 \\ 0 & 0 & 1 \\ 12 & -9 & 3 \end{pmatrix} \quad D = \begin{pmatrix} -3 & 4 \\ 2 & 5 \end{pmatrix}$$

1. What are the dimensions of these matrices?

A B C D

2. Determine the value of the following entries:

$a_{12} =$ $b_{23} =$ $c_{32} =$ $d_{21} =$ $c_{31} =$

Please find the following matrices.

3. $2A$

4. BC

5. AD

6. $AB+C$

All other work must be done by hand.

Questions 7-12 refer to the matrices below.

$$A = \begin{pmatrix} 3 & -2 & -1 \\ 4 & 11 & 2 \\ 0 & -6 & -3 \end{pmatrix} \quad B = \begin{pmatrix} 2 & -9 & -6 & 1 \\ 6 & 3 & 1 & 3 \\ 0 & 3 & 1 & 4 \\ 0 & -1 & 10 & -10 \end{pmatrix} \quad C = \begin{pmatrix} 2 & 1 \\ -3 & -6 \\ -5 & 9 \\ 0 & 4 \end{pmatrix} \quad D = \begin{pmatrix} 1 & -4 & -1 \\ 1 & -5 & 5 \\ 1 & -5 & 9 \end{pmatrix}$$

7. What are the dimensions of these matrices?

A B C D

8. Determine the value of the following entries:

$$a_{23} = \quad b_{31} = \quad c_{41} = \quad a_{32} = \quad b_{34} =$$

Please find the following matrices.

9. $A + D$

10. BC

11. D^2

12. $-2(AD)$