NAME_____ Date _____ Pd _____

☑ *Use when you get it right all by yourself*

S Use when you did it all by yourself, but made a silly mistake

H Use when you could do it alone with a little help from teacher or peer

G Use when you completed the problem in a group

X Use when a question was attempted but wrong (get help)

N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Dimensions, addresses, naming matrices	14, 15	16 - 20	25
Adding/Subtracting Matrices	8, 9	1	4, 5
Scalar Multiplication with Matrices	10	1	4
Multiplying Matrices	12, 16 - 20	2, 11	3

On the test you will be responsible to complete the test with or without a calculator. The calculator should be used to check and occasionally solve a problem more efficiently. No partial credit will be awarded without proper work shown.

1-3: Perform the following operations .Be sure to be able to do them both by hand and using the calculator!

$$A = \begin{bmatrix} 3 & 1 \\ -5 & 2 \end{bmatrix} \qquad B = \begin{bmatrix} 3 & -1 \\ -5 & 2 \end{bmatrix} \qquad C = \begin{bmatrix} -6 & 0 \\ 4 & 3 \end{bmatrix} \qquad D = \begin{bmatrix} 7 & -2 & 9 \\ -4 & 1 & -8 \end{bmatrix} \qquad E = \begin{bmatrix} 7 & 2 & 9 \\ 4 & 1 & 8 \end{bmatrix}$$

1. Find $2C - B$

2. Find $A \cdot E$

3. Find B^2

4. Find K so that $D - 2K = \begin{bmatrix} 2 & 0 & 3 \\ 0 & 1 & -4 \end{bmatrix}$

5. Solve for $x,\ y$ and z given: $\begin{bmatrix} x^2 & y+z \\ -2 & 1 \end{bmatrix} = \begin{bmatrix} 9 & -7 \\ 2z-y & 1 \end{bmatrix}$

6-10: Perform the following operations .Be sure to be able to do them both by hand and using the calculator!

$$A = \begin{bmatrix} 3 & 4 \\ 1 & -2 \\ 0 & -1 \end{bmatrix} \qquad B = \begin{bmatrix} 4 & 0 \\ 0 & 4 \end{bmatrix} \qquad C = \begin{bmatrix} 1 & -1 \\ 3 & 2 \\ 5 & -1 \end{bmatrix} \qquad D = \begin{bmatrix} -2 & 1 & 4 \\ -1 & 0 & 3 \end{bmatrix} \qquad E = \begin{bmatrix} 1 & -2 & 3 \\ -5 & 0 & 1 \\ -1 & 4 & 2 \end{bmatrix}$$

6. $A + B$

7. $C - A$

8. $-2D$

9. BD

10. AC

11. What number is in c_{22} ?

12. State the dimensions of AD .

13 – 17: Given that $A_{5\times2}$, $B_{2\times5}$, $C_{1\times5}$, and $R_{5\times2}$, state what the dimensions of the products would be, if they are defined.

13. AB	14. CB	15. AR	16. RB	17. CA

18. Solve the matrix for the missing variable.

$$\begin{bmatrix} 4 & 2x+3 \\ 5y-1 & 2 \end{bmatrix} = \begin{bmatrix} 4 & -1 \\ 2y & 2 \end{bmatrix}$$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.

1 2	3 4 5	6 7	8
Basic	Intermediate	Advanced	Solved ALL!