

**DORIS JOHNSON SENIOR HIGH SCHOOL**  
**MATHEMATICS DEPARTMENT**  
**MATRICES**  
**INVERSE OF A MATRIX**

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

INSTRUCTIONS: Calculate the inverse of each inverse below where possible. Type your elements as DECIMALS ONLY. Where there is no inverse, type "none" on the line.

1)  $A = \begin{pmatrix} 2 & 4 \\ 1 & 3 \end{pmatrix}$   $A^{-1} = \left( \quad \quad \right)$  OR  $A^{-1} = \underline{\quad}$

2)  $B = \begin{pmatrix} 5 & 10 \\ -1 & 2 \end{pmatrix}$   $B^{-1} = \left( \quad \quad \right)$  OR  $B^{-1} = \underline{\quad}$

3)  $C = \begin{pmatrix} 3 & 2 \\ 2 & 1 \end{pmatrix}$   $C^{-1} = \left( \quad \quad \right)$  OR  $C^{-1} = \underline{\quad}$

4)  $D = \begin{pmatrix} 8 & 2 \\ -1 & 0 \end{pmatrix}$   $D^{-1} = \left( \quad \quad \right)$  OR  $D^{-1} = \underline{\quad}$

5)  $E = \begin{pmatrix} 2 & -8 \\ -1 & 4 \end{pmatrix}$   $E^{-1} = \left( \quad \quad \right)$  OR  $E^{-1} = \underline{\quad}$

6)  $F = \begin{pmatrix} -1 & 0 \\ 0 & -1 \end{pmatrix}$   $F^{-1} = \left( \quad \quad \right)$  OR  $F^{-1} = \underline{\quad}$