Handout 1 - The Old Switcheroo and Who's Who in the Matrix

- 1. Express 3x 2y = 5 and -x + 4y = 1using matrices.
- 6. In this matrix $\begin{bmatrix} 3 & -5 & 1 \\ -2 & 0 & 4 \end{bmatrix}$, what is
- 2. Express these as equations: $\begin{bmatrix} x & -y \\ 3x & 4y \end{bmatrix} \begin{bmatrix} -6 \\ 2 \end{bmatrix}$ 7. In this matrix $\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$, what is e_{23} ?
- 3. In this matrix $\begin{bmatrix} 3 & -5 & 1 \\ -2 & 0 & 4 \end{bmatrix}$ what is in row one?
- 8. Express 2x-2y+3z=5, 3x+4y+z=8and -4x - 2y - 2z = 8 using matrices.
- 4. In this matrix $\begin{bmatrix} 3 & -5 & 1 \\ -2 & 0 & 4 \end{bmatrix}$ what is in
- 9. Express these matrices as equations: $\begin{bmatrix} x & 2y & 5z \\ -5x & -3y & -z \\ -4x & 4y & -2z \end{bmatrix} = \begin{bmatrix} 6 \\ 9 \\ 8 \end{bmatrix}$

5. In this matrix
$$\begin{bmatrix} 3 & -5 & 1 \\ -2 & 0 & 4 \end{bmatrix}$$
 which enty

10. What is the formula for location of entries?

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