Activity 2.2a: Augmented matrices

1. Write the system of equations as an augmented matrix:

4x + 5y = 6	$x \\ 4x$	+2y +5y	= 3 = 6	Answer:	「		
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2. Write the system of equations as an augmented matrix:

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3. Write the systems of equations as an augmented matrix:

Answer: z = 2

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4. Write the system of equations as an augmented matrix:

$2x \\ x$	$egin{array}{c} -y \ -y \ y \ y \end{array}$	+z +z +z	= 4 = 3 = 4	Answer:	-]

5. Write the augmented matrix as a system of equations:

[1	2	3	4		x	+	y	+	z	= .	
$\begin{bmatrix} 5\\9 \end{bmatrix}$	$\begin{array}{c} 6 \\ 10 \end{array}$	$\begin{array}{c} 7 \\ 11 \end{array}$	$\begin{vmatrix} 8\\ 12 \end{vmatrix}$	Answer:	x	+	y	+	z	=	
					x	+	y	+	z	=	

Name: _____

Activity 2.2b: Elimination



- 1. Circle all the pivots (first nonzero in each row)
- 2. Label the active pivot (top one) and target pivot (second one)
- 3. Write down the row operation (target row $\frac{\text{target pivot}}{\text{active pivot}}$ active row) above the arrow
- 4. Write down the new matrix (copy the active row without change; write down the transformed target row; copy the untouched row) in the space provided



- 1. Circle all the pivots
- 2. Label the active pivot and target pivot
- 3. Write down the row operation
- 4. Write down the new matrix



- 1. Circle all the pivots
- 2. Notice no two pivots are in the same column, so REF
- 3. Write down the system of equations
- 4. Solve for z =_____
- 5. Solve for y =_____
- 6. Solve for x =_____

Quiz on 2.1: Systems of equations

1. Write down the augmented matrix:

Name:



2. Bring the following matrix to REF:



(1st) circle the pivots, label the active and target pivots, write down the row operation, write down the new matrix(2nd) circle the new pivots, label the active and target pivots, write down the row operation, write down the new matrix(3rd) circle the final pivots, notice no two share a column so REF. Solve for:

Answer: $(x = _, y = _, z = _)$