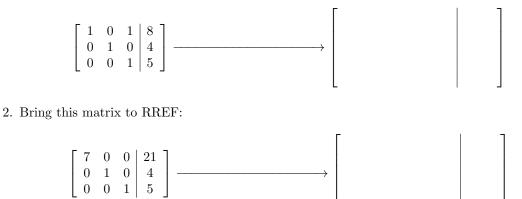
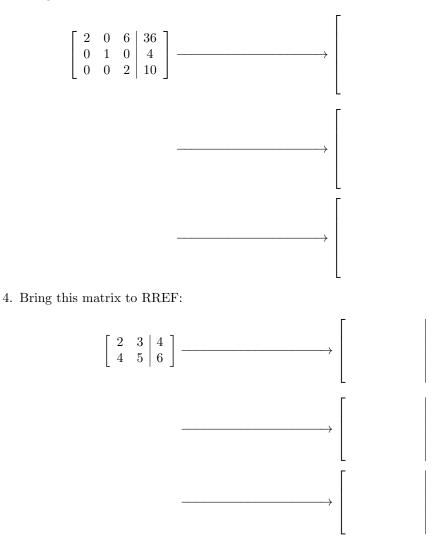
## Activity 2.3a: RREF

1. Bring this matrix to RREF:



## 3. Bring this matrix to RREF:



## Activity 2.3b: Degeneracy

1. Does this matrix have one, none, or infinitely many solutions:

Γ	1	17	0	43
	0	0	29	21
L	0	0	0	0

2. Does this matrix have one, none, or infinitely many solutions:

Γ	1	17	0	43
	0	0	29	21
L	0	0	0	19

3. Reduce this matrix to RREF. Does it have one, none, or infinitely many solutions?

Γ	1	17	0	43
	0	0	29	21
	0	0	58	42

4. For every value of k, this matrix is in RREF. For what single value of k does it have infinitely many solutions?

Γ	1	0	0	43
	0	1	0	21
L	0	0	k	0

5. For every value of k, this matrix is in RREF. For what single value of k does it have no solutions?

Γ	1	0	0	43
	0	k	0	21
L	0	0	1	19

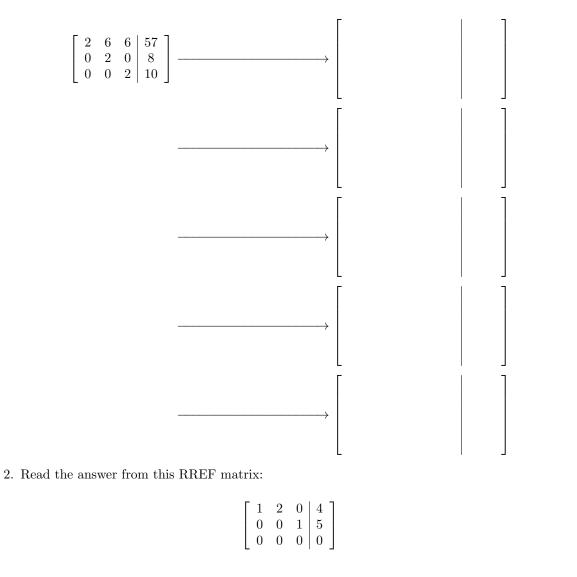
6. For every value of k, this matrix is in RREF. For what single value of k does it have infinitely many solutions?

Γ	1	0	0	$\begin{bmatrix} 43 \\ 21 \end{bmatrix}$
	0	1	0	$\begin{array}{c} 43\\21\end{array}$
L	0	0	0	k

7. For every value of k, this matrix is in RREF. Does changing k affect how many solutions there are?

## Quiz on 2.3: RREF and degeneracy

1. Bring this matrix to RREF:



	(:	<i>x</i> =	,y :	=	, z	: =	)	
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