and since the minimum is 0, we pick the outgoing column to be Column $k^- = 7$. The pivot 3 is indicated in red and the new basis is $K = (2, 1, 6, 5)$. Since the minimum is 0, the basis $K = (2, 1, 6, 5)$ is degenerate (indeed, the component corresponding to the index 5 is 0). Next we apply row operations to reduce Column 5 to the fourth vector of the identity matrix I_4. For this, we multiply Row 4 by 1/3, and then add the normalized Row 4 to Row 1 and subtract the normalized Row 4 from Row 2 to obtain the tableau:

4	0	0	-8	-14	13	0	0
$u_2 = 2$	0	1	$1/3$	0	0	0	$1/3$
$u_1 = 2$	1	0	$2/3$	1	0	0	$-1/3$
$u_6 = 3$	0	0	1	0	0	1	0
$u_5 = 0$	0	0	$-2/3$	-1	1	0	$1/3$

To compute the new reduced costs, we want to set $\bar{c}_5$ to 0, so we subtract $13\times$ Row 4 from Row 0 to get the tableau

4	0	0	$2/3$	-1	0	0	$-13/3$
$u_2 = 2$	0	1	$1/3$	0	0	0	$1/3$
$u_1 = 2$	1	0	$2/3$	1	0	0	$-1/3$
$u_6 = 3$	0	0	1	0	0	1	0
$u_5 = 0$	0	0	$-2/3$	-1	1	0	$1/3$

The only possible incoming column corresponds to $j^+ = 3$. We have the ratios (for positive entries on Column 3)

$$2/(1/3) = 6, \; 2/(2/3) = 3, \; 3/1 = 3,$$

and since the minimum is 3, we pick the outgoing column to be Column $k^- = 1$. The pivot 2/3 is indicated in red and the new basis is $K = (2, 3, 6, 5)$. Next we apply row operations to reduce Column 3 to the second vector of the identity matrix I_4. For this, we multiply Row 2 by 3/2, subtract $(1/3)\times$ (normalized Row 2) from Row 1, and subtract normalized Row 2 from Row 3, and add $(2/3)\times$ (normalized Row 2) to Row 4 to obtain the tableau:

4	0	0	$2/3$	-1	0	0	$-13/3$
$u_2 = 1$	$-1/2$	1	0	$-1/2$	0	0	$1/2$
$u_3 = 3$	$3/2$	0	1	$3/2$	0	0	$-1/2$
$u_6 = 0$	$-3/2$	0	0	$-3/2$	0	1	$1/2$
$u_5 = 2$	1	0	0	0	1	0	0

To compute the new reduced costs, we want to set $\bar{c}_3$ to 0, so we subtract $(2/3)\times$ Row 2 from Row 0 to get the tableau