**Sıfır uzayı için taban bulma algoritması örneği.**

>> A

A =

 1 0 2 -8 5 -3

 -2 2 -4 18 -12 5

 5 -2 10 -5 7 -18

 9 -2 22 -6 3 2

>> $\overbar{A}$(2,:)=A(2,:)+2\*A(1,:)

$\overbar{A}$ =

 1 0 2 -8 5 -3

 0 2 0 2 -2 -1

 5 -2 10 -5 7 -18

 9 -2 22 -6 3 2

>> $\overbar{A}$ (3,:)=$ \overbar{A}$ (3,:)-5\*$\overbar{A}$ (1,:)

$\overbar{A}$ =

 1 0 2 -8 5 -3

 0 2 0 2 -2 -1

 0 -2 0 35 -18 -3

 9 -2 22 -6 3 2

>> $\overbar{A}$ (4,:)=$ \overbar{A}$ (4,:)-9\*$\overbar{A}$ (1,:)

$\overbar{A}$ =

 1 0 2 -8 5 -3

 0 2 0 2 -2 -1

 0 -2 0 35 -18 -3

 0 -2 4 66 -42 29

>> $\overbar{A}$ (3,:)=$ \overbar{A}$ (3,:)+1\*$\overbar{A}$ (2,:)

$\overbar{A}$ =

 1 0 2 -8 5 -3

 0 2 0 2 -2 -1

 0 0 0 37 -20 -4

 0 -2 4 66 -42 29

>> $\overbar{A}$ (4,:)=$ \overbar{A}$ (4,:)+1\*$\overbar{A}$ (2,:)

$\overbar{A}$ =

 1 0 2 -8 5 -3

 0 2 0 2 -2 -1

 0 0 0 37 -20 -4

 0 0 4 68 -44 28

>> $\overbar{A}$ (1,:)=$ \overbar{A}$ (1,:)-0.5\*$\overbar{A}$ (4,:)

$\overbar{A}$ =

 1 0 0 -42 27 -17

 0 2 0 2 -2 -1

 0 0 0 37 -20 -4

 0 0 4 68 -44 28

>> r=$\overbar{A}$ (3,:); $\overbar{A}$ (3,:)=$ \overbar{A}$ (4,:); $\overbar{A}$ (4,:)=r

$\overbar{A}$ =

 1 0 0 -42 27 -17

 0 2 0 2 -2 -1

 0 0 4 68 -44 28

 0 0 0 37 -20 -4

>> $\overbar{A}$ (1,:)=$ \overbar{A}$ (1,:)+42/37\*$\overbar{A}$ (4,:)

$\overbar{A}$ =

 1.00000 0.00000 0.00000 0.00000 4.29730 -21.54054

 0.00000 2.00000 0.00000 2.00000 -2.00000 -1.00000

 0.00000 0.00000 4.00000 68.00000 -44.00000 28.00000

 0.00000 0.00000 0.00000 37.00000 -20.00000 -4.00000

>> $\overbar{A}$ (2,:)=$ \overbar{A}$ (2,:)-2/37\*$\overbar{A}$(4,:)

$\overbar{A}$ =

 1.00000 0.00000 0.00000 0.00000 4.29730 -21.54054

 0.00000 2.00000 0.00000 0.00000 -0.91892 -0.78378

 0.00000 0.00000 4.00000 68.00000 -44.00000 28.00000

 0.00000 0.00000 0.00000 37.00000 -20.00000 -4.00000

>> $\overbar{A}$(3,:)=$ \overbar{A}$(3,:)-68/37\*$\overbar{A}$(4,:)

$\overbar{A}$ =

 1.00000 0.00000 0.00000 0.00000 4.29730 -21.54054

 0.00000 2.00000 0.00000 0.00000 -0.91892 -0.78378

 0.00000 0.00000 4.00000 0.00000 -7.24324 35.35135

 0.00000 0.00000 0.00000 37.00000 -20.00000 -4.00000

K={1 , 2 , 3 , 4}; L={5 , 6};

x1 = [a1 b1 c1 d1 1 0]T  $\overbar{A}x\_{1}=0$ denklemi çözülürse

x1 = [-4.29730/1 +0.91892/2 +7.24324/4 +20/37 1 0 ]T

 x1 = [-4.2973 0.45946 1.81081 0.54054 1 0 ]T

x2 = [a2 b2 c2 d2  0 1]T  $\overbar{A}x\_{2}=0$ denklemi çözülürse

x2 = [21.54054/1 0.78378/2 -35.35135/4 +4/37 0 1]T

 x2 = [21.54054 0.39189 -8.83784 0.108108 0 1 ]T

x1 ve x2 sütun vektör (transpoza dikkat).

Taban = $B=\left\{x\_{1} , x\_{2}\right\}$