

Fase 2; Max  $Z = 3x + 5y$ , original igualada a 0

Base	$x$	$y$	$M_1$	$E_1$	$E_2$	VS
$x$	1	0	0	$-\frac{2}{9}$	$\frac{1}{9}$	$\frac{2}{3}$
$y$	0	1	0	$-\frac{1}{9}$	$-\frac{9}{9}$	$\frac{4}{3}$
$M_1$	0	0	1	$\frac{1}{9}$	$\frac{9}{9}$	$\frac{5}{3}$
$Z$	-3	-5	0	0	0	0

Gauss Jordan Fila

Fila  $x \cdot 3 + z$

Base	$x$	$y$	$M_1$	$E_1$	$E_2$	VS
$x \cdot 3$	3	0	0	$-\frac{2}{3}$	$\frac{1}{3}$	2
$z$	-3	-5	0	0	0	0
Nuevo $Z$	0	-5	0	$-\frac{2}{3}$	$\frac{1}{3}$	2

Fila  $y \cdot 5 + z$

Base	$x$	$y$	$M_1$	$E_1$	$E_2$	VS
$y \cdot 5$	0	5	0	$-\frac{5}{9}$	$-\frac{20}{9}$	$\frac{26}{3}$
$z$	0	-5	0	$-\frac{2}{3}$	$\frac{1}{3}$	2
Nuevo $Z$	0	0	0	$-\frac{22}{9}$	$-\frac{27}{9}$	$\frac{26}{3}$

$x=0$ , esta en la base

$$\frac{22}{9} = 2,22 \quad \frac{27}{9} = 3,00$$

$y=0$ , esta en la base

$M_1=0$ , esta en la base

$$VE = E_2$$

$E_1$  Negativo  $\rightarrow$  iterar

$E_2$  Negativo  $\rightarrow$  iterar

$$RM$$

Pirote

Base	$X$	$Y$	$H_1$	$E_1$	$E_2$	$VS$
$H_1 - SE_2$	0	0	$\frac{9}{4}$	$\frac{1}{4}$	1	$\frac{45}{12}$

$X$	$Y$	$Z$
$X = I - (\frac{1}{4} \cdot 0) = 0$	$X = 0 - (-\frac{9}{4} \cdot 0) = 0$	$X = 0 - (-\frac{27}{4} \cdot 0) = 0$
$Y = 0 - (\frac{1}{4} \cdot 0) = 1$	$Y = I - (-\frac{9}{4} \cdot 0) = 1$	$Y = 0 - (-\frac{27}{4} \cdot 0) = 0$
$H_1 = 0 - (\frac{1}{4} \cdot \frac{9}{4}) = 1$	$H_1 = 0 - (\frac{9}{4} \cdot \frac{9}{4}) = 1$	$H_1 = 0 - (-\frac{27}{4} \cdot \frac{9}{4}) = \frac{27}{4}$
$E_1 = \frac{2}{9} - (\frac{1}{4} \cdot \frac{1}{4}) = 0$	$E_1 = -\frac{1}{9} - (-\frac{9}{4} \cdot \frac{1}{4}) = 0$	$E_1 = -\frac{27}{9} - (-\frac{27}{4} \cdot \frac{1}{4}) = \frac{3}{4}$
$E_2 = \frac{1}{9} - (\frac{1}{4} \cdot 1) = 0$	$E_2 = -\frac{9}{9} - (-\frac{9}{4} \cdot 1) = 0$	$E_2 = \frac{27}{9} - (-\frac{27}{4} \cdot 1) = 0$
$VS = \frac{2}{3} - (\frac{1}{4} \cdot \frac{45}{12}) = 3$	$VS = \frac{9}{3} - (-\frac{9}{4} \cdot \frac{45}{12}) = 3$	$VS = \frac{26}{3} - (-\frac{27}{4} \cdot \frac{45}{12}) = \frac{63}{4}$

Base	$X$	$Y$	$H_1$	$E_1$	$E_2$	$VS$
$X$	1	0	$-\frac{1}{4}$	$-\frac{1}{4}$	0	$\frac{1}{4}$
$Y$	0	1	1	0	0	3
$E_2$	0	0	$\frac{9}{4}$	$\frac{1}{4}$	1	$\frac{45}{12}$
$Z$	0	0	$\frac{27}{4}$	$-\frac{3}{4}$	0	$\frac{63}{4}$

$X=0$  esta en la base

$Y=0$  esta en la base

$H_1$  positivo

$E_1$  negativo

$E_2=0$ , esta en la base

$$VE = E_1 \quad \text{y } H_1 = \frac{\frac{9}{4}}{\frac{1}{4}}$$

$$VS = E_2$$

Pirote

Base	$x$	$y$	$H_1$	$E_1$	$E_2$	VS
$E_2 \rightarrow E_1$	0	0	9	1	7	27

$X$	$Y$	$Z$
$X = 1 - (-\frac{1}{9} \cdot 0) = 0$	$Y = 0 - (0 \cdot 0) = 0$	$Z = 0 - (-\frac{3}{9} \cdot 0) = 0$
$Y = 0 - (-\frac{1}{9} \cdot 0) = 0$	$Y = 1 - (0 \cdot 0) = 1$	$Y = 0 - (-\frac{3}{9} \cdot 0) = 0$
$H_1 = \frac{1}{9} - (-\frac{1}{9} \cdot 9) = 2$	$H_1 = 1 - (0 \cdot 9) = 1$	$H_1 = \frac{11}{9} - (-\frac{3}{9} \cdot 9) = 11$
$E_1 = \frac{1}{9} - (-\frac{1}{9} \cdot 1) = 0$	$E_1 = 0 - (0 \cdot 1) = 0$	$E_1 = \frac{3}{9} - (-\frac{3}{9} \cdot 1) = 0$
$E_2 = 0 - (-\frac{1}{9} \cdot 1) = 1$	$E_2 = 0 - (0 \cdot 1) = 0$	$E_2 = 0 - (-\frac{3}{9} \cdot 1) = 3$
$VS = \frac{3}{9} - (-\frac{1}{9} \cdot 27) = 9$	$VS = 3 - (0 \cdot 27) = 3$	$VS = \frac{63}{9} - (-\frac{3}{9} \cdot 27) = 27$

Base	$X$	$Y$	$H_1$	$E_1$	$E_2$	VS
$X$	1	0	2	0	1	9
$Y$	0	1	1	0	0	3
$E_1$	0	0	9	1	7	27
$Z$	0	0	11	0	3	27

$X=0$  esta en la base

$Y=0$  esta en la base

$H_1$  positivo, no itera

$E_1$  positivo, no itera

$E_2$  positivo, no itera

Punto  $(9, 3)$  max  $Z = 3x + 5y$

$$= 3 \cdot 9 + 5 \cdot 3$$

$$= 27$$