

UDS

LICENCIATURA EN ADMINISTRACION DE EMPRESAS

MATEMATICAS APLICADAS A LAS CIENCIAS SOCIALES

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18/01/2021

24/01/2021

$$\begin{aligned} 3x - 2y &= 4 \\ 5x + 3y &= 13 \end{aligned}$$

Despejar X

$$\begin{aligned} 3x &= 4 + 2y \\ x &= \frac{4 + 2y}{3} \end{aligned}$$

Substitucion

$$\begin{aligned} 5\left(\frac{4 + 2y}{3}\right) &= 13 - 3y \\ 20 + 10y &= 39 - 9y \\ 10y + 9y &= 39 - 20 \\ 19y &= 19 \\ y &= \frac{19}{19} \\ y &= 1 \end{aligned}$$

Reemplazar y

$$\begin{aligned} 3x - 2(1) &= 4 \\ 3x - 2 &= 4 \\ 3x &= 4 + 2 \\ x &= \frac{6}{3} \\ x &= 2 \end{aligned}$$

$5x + 3y = 13$
 $5x + 3(1) = 13$
 $5x + 3 = 13$
 $5x = 13 - 3$
 $x = \frac{10}{5}$
 $x = 2$

$$\begin{aligned} 4x + 3y &= -1 \\ 3x + 5y &= -9 \end{aligned}$$

Despejar X

$$\begin{aligned} 4x + 3y &= -1 \\ 4x &= -1 - 3y \end{aligned}$$

Substitucion

$$\begin{aligned} 3(-1 - 3y) &= -9 - 5y \\ -3 - 9y &= -9 - 5y \\ -9y + 20y &= -9 + 3 \\ 11y &= -3 \\ y &= \frac{-3}{11} \\ y &= -\frac{3}{11} \end{aligned}$$

Reemplazar y

$$\begin{aligned} 4x + 3\left(-\frac{3}{11}\right) &= -1 \\ 4x + 5(-3) &= -9 \\ 4x - 15 &= -9 \\ 4x &= -9 + 15 \\ x &= \frac{6}{4} \\ x &= \frac{3}{2} \end{aligned}$$

$3x + 5y = -9$
 $3x + 5\left(-\frac{3}{11}\right) = -9$
 $3x - 15 = -9$
 $3x = -9 + 15$
 $x = \frac{6}{3}$
 $x = 2$

