

Antwoorden:

$$\begin{cases} 2x+5y=1 \\ x-y=4 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 1 & 5 \\ 4 & -1 \end{vmatrix}}{\begin{vmatrix} 2 & 5 \\ 1 & -1 \end{vmatrix}} = \frac{-21}{-7} = 3 \\ y = \frac{\begin{vmatrix} 2 & 1 \\ 1 & 4 \end{vmatrix}}{\begin{vmatrix} 2 & 5 \\ 1 & -1 \end{vmatrix}} = \frac{7}{-7} = -1 \end{cases}$$

$$\begin{cases} 3x+2y=2 \\ x+y=2 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 2 & 2 \\ 2 & 1 \end{vmatrix}}{\begin{vmatrix} 3 & 2 \\ 1 & 1 \end{vmatrix}} = \frac{-2}{1} = -2 \\ y = \frac{\begin{vmatrix} 3 & 2 \\ 1 & 2 \end{vmatrix}}{\begin{vmatrix} 3 & 2 \\ 1 & 1 \end{vmatrix}} = \frac{4}{1} = 4 \end{cases}$$

$$\begin{cases} x-4y=1 \\ x+y=6 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 1 & -4 \\ 6 & 1 \end{vmatrix}}{\begin{vmatrix} 1 & -4 \\ 1 & 1 \end{vmatrix}} = \frac{25}{5} = 5 \\ y = \frac{\begin{vmatrix} 1 & 1 \\ 1 & 6 \end{vmatrix}}{\begin{vmatrix} 1 & -4 \\ 1 & 1 \end{vmatrix}} = \frac{5}{5} = 1 \end{cases}$$

$$\begin{cases} x+2y=6 \\ 3x-y=4 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 6 & 2 \\ 4 & -1 \end{vmatrix}}{\begin{vmatrix} 1 & 2 \\ 3 & -1 \end{vmatrix}} = \frac{-14}{-7} = 2 \\ y = \frac{\begin{vmatrix} 1 & 6 \\ 3 & 4 \end{vmatrix}}{\begin{vmatrix} 1 & 2 \\ 3 & -1 \end{vmatrix}} = \frac{-14}{-7} = 2 \end{cases}$$

$$\begin{cases} 2x+y=8 \\ 4x-y=-2 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 8 & 1 \\ -2 & -1 \end{vmatrix}}{\begin{vmatrix} 2 & 1 \\ 4 & -1 \end{vmatrix}} = \frac{-6}{-6} = 1 \\ y = \frac{\begin{vmatrix} 2 & 8 \\ 4 & -2 \end{vmatrix}}{\begin{vmatrix} 2 & 1 \\ 4 & -1 \end{vmatrix}} = \frac{-36}{-6} = 6 \end{cases}$$

$$\begin{cases} x+y=1 \\ 3x+4y=7 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 1 & 1 \\ 7 & 4 \end{vmatrix}}{\begin{vmatrix} 1 & 1 \\ 3 & 4 \end{vmatrix}} = \frac{-3}{1} = -3 \\ y = \frac{\begin{vmatrix} 1 & 1 \\ 3 & 7 \end{vmatrix}}{\begin{vmatrix} 1 & 1 \\ 3 & 4 \end{vmatrix}} = \frac{4}{1} = 4 \end{cases}$$

$$\begin{cases} y - x = 15 \\ x + 2y = 6 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 15 & 1 \\ 6 & 2 \end{vmatrix}}{\begin{vmatrix} -1 & 1 \\ 1 & 2 \end{vmatrix}} = \frac{24}{-3} = -8 \\ y = \frac{\begin{vmatrix} -1 & 15 \\ 1 & 6 \end{vmatrix}}{\begin{vmatrix} -1 & 1 \\ 1 & 2 \end{vmatrix}} = \frac{-21}{-3} = 7 \end{cases}$$

$$\begin{cases} 5x - 2y = 1 \\ 3x - 4y = -5 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 1 & -2 \\ -5 & -4 \end{vmatrix}}{\begin{vmatrix} 5 & -2 \\ 3 & -4 \end{vmatrix}} = \frac{-14}{-14} = 1 \\ y = \frac{\begin{vmatrix} 5 & 1 \\ 3 & -5 \end{vmatrix}}{\begin{vmatrix} 5 & -2 \\ 3 & -4 \end{vmatrix}} = \frac{-28}{-14} = 2 \end{cases}$$

$$\begin{cases} 4x + y = 5 \\ 2x - y = -2 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 5 & 1 \\ -2 & -1 \end{vmatrix}}{\begin{vmatrix} 4 & 1 \\ 2 & -1 \end{vmatrix}} = \frac{-3}{-6} = \frac{1}{2} \\ y = \frac{\begin{vmatrix} 4 & 5 \\ 2 & -2 \end{vmatrix}}{\begin{vmatrix} 4 & 1 \\ 2 & -1 \end{vmatrix}} = \frac{-18}{-6} = 3 \end{cases}$$

$$\begin{cases} x + 2y = 5 \\ 3x + 4y = 12 \end{cases} \Rightarrow \begin{cases} x = \frac{\begin{vmatrix} 5 & 2 \\ 12 & 4 \end{vmatrix}}{\begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix}} = \frac{-4}{-2} = 2 \\ y = \frac{\begin{vmatrix} 1 & 5 \\ 3 & 12 \end{vmatrix}}{\begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix}} = \frac{-3}{-2} = 1\frac{1}{2} \end{cases}$$