

Enunciados

Resuelve las siguientes ecuaciones sabiendo que todas tienen dos soluciones que son números enteros.

① $(x+5)(x-2)=2(x+1)$

② $(3x+2)^2=(2x+3)^2$

③ $(2x+1)^2=12x+61$

④ $\frac{x^2}{2}=9x-40$

⑤ $(x+1)^2+(x+2)^2=685$

⑥ $\frac{3x^2-20x}{4}+\frac{(x-2)^2}{4}=17$

⑦ $(5x+2)(x-3)+84=(3-x)(2+x)+28x$

⑧ $(4x-7)(2x+7)+49x=(x+8)(x-8)+15$

⑨ $(2x-3)^2+(2x+7)(2x-7)=4(2-x)$

⑩ $\frac{40}{3}+\frac{7x-9}{6}=\frac{x-1}{6}+x^2$

⑪ $(5x-4)^2=3x+(2x+5)^2+201$

⑫ $(x-1)^2+(x-2)^2+(x-3)^2=77$

⑬ $x^2+\frac{14x+29}{2}+\frac{3x+2}{3}=\frac{1}{6}$

⑭ $(3x+2)^2-75=(3x+1)(x+1)+2x$

⑮ $x^2+\frac{x-19}{5}+\frac{2(x-16)}{3}=\frac{58x+203}{15}$

⑯ $5x^2-(2x-5)(3x+1)=27$

⑰ $\frac{(x+1)^2}{4}-\frac{(x-2)^2}{5}=11$

⑱ $(2x+5)^2+x=(3x+1)^2+24$

⑲ $(2x-1)^2+5=\frac{7(x+3)^2}{2}$

⑳ $3(x+5)(x-5)=2(x+1)^2$

㉑ $\left(\frac{x}{2}+1\right)^2=(x-7)^2$

㉒ $(2x+1)^2-(3x+2)(x-5)=281$

Soluciones

$$\textcircled{1} \quad x = \begin{pmatrix} 3 \\ -4 \end{pmatrix}$$

$$\textcircled{2} \quad x = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$

$$\textcircled{3} \quad x = \begin{pmatrix} 5 \\ -3 \end{pmatrix}$$

$$\textcircled{4} \quad x = \begin{pmatrix} 10 \\ 8 \end{pmatrix}$$

$$\textcircled{5} \quad x = \begin{pmatrix} 17 \\ -20 \end{pmatrix}$$

$$\textcircled{6} \quad x = \begin{pmatrix} 8 \\ -2 \end{pmatrix}$$

$$\textcircled{7} \quad x = \begin{pmatrix} 4 \\ 3 \end{pmatrix}$$

$$\textcircled{8} \quad x = \begin{pmatrix} 0 \\ -9 \end{pmatrix}$$

$$\textcircled{9} \quad x = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$$

$$\textcircled{10} \quad x = \begin{pmatrix} 4 \\ -3 \end{pmatrix}$$

$$\textcircled{11} \quad x = \begin{pmatrix} 5 \\ -2 \end{pmatrix}$$

$$\textcircled{12} \quad x = \begin{pmatrix} 7 \\ -3 \end{pmatrix}$$

$$\textcircled{13} \quad x = \begin{pmatrix} -3 \\ -5 \end{pmatrix}$$

$$\textcircled{14} \quad x = \begin{pmatrix} 3 \\ -4 \end{pmatrix}$$

$$\textcircled{15} \quad x = \begin{pmatrix} 7 \\ -4 \end{pmatrix}$$

$$\textcircled{16} \quad x = \begin{pmatrix} 11 \\ 2 \end{pmatrix}$$

$$\textcircled{17} \quad x = \begin{pmatrix} 7 \\ -33 \end{pmatrix}$$

$$\textcircled{18} \quad x = \begin{pmatrix} 0 \\ 3 \end{pmatrix}$$

$$\textcircled{19} \quad x = \begin{pmatrix} 51 \\ -1 \end{pmatrix}$$

$$\textcircled{20} \quad x = \begin{pmatrix} 11 \\ -7 \end{pmatrix}$$

$$\textcircled{21} \quad x = \begin{pmatrix} 16 \\ 4 \end{pmatrix}$$

$$\textcircled{22} \quad x = \begin{pmatrix} 10 \\ -27 \end{pmatrix}$$