

Devoirs 3 élimination SOL

10:04 PM

Devoirs 3 Systemes - Méthode de l'élimination

Nom _____ Per _____

Résous les systemes suivants avec la méthode de l'élimination :

<p>(1) $2x + 3y = -5$ $3x - y = 5 \times 3$</p> <p>$2x + 3y = -5$ $9x - 3y = 15$) +</p> <p>$11x = 10 \Rightarrow x = \frac{10}{11}$</p> <p>in (2) $3 \frac{10}{11} - y = 5 \Rightarrow$ $y = \frac{30}{11} - \frac{55}{11} = -\frac{25}{11}$</p> <p>$(\frac{10}{11}, -\frac{25}{11})$</p>	<p>$x + 4y = 10$ $2x - y = -2 \times 4$</p> <p>$x + 4y = 10$ $8x - 4y = -8$) +</p> <p>$9x = 2 \Rightarrow x = \frac{2}{9}$</p> <p>in (2): $\frac{4}{9} - y = -2 \Rightarrow y = \frac{4}{9} + 2 = \frac{22}{9}$</p> <p>$(\frac{2}{9}, \frac{22}{9})$</p>
<p>(1) $4x - 3y = -7$ $2x - 5y = 1 \times 2$</p> <p>$4x - 3y = -7$ $4x - 10y = 2$) -</p> <p>$7y = -9 \Rightarrow y = -\frac{9}{7}$</p> <p>(2) $2x + \frac{45}{7} = 1$ $2x = 1 - \frac{45}{7} = -\frac{38}{7} \Rightarrow x = -\frac{19}{7}$</p> <p>$(-\frac{19}{7}, -\frac{9}{7})$</p>	<p>$6x + 5y = -9$ $2x - y = 8 \times 5$</p> <p>$6x + 5y = -9$ $10x - 5y = 40$</p> <p>$16x = 31 \Rightarrow x = \frac{31}{16}$</p> <p>$2 \cdot \frac{31}{16} - y = 8$ $y = \frac{31}{8} - \frac{64}{8} \Rightarrow y = -\frac{33}{8}$</p> <p>$(\frac{31}{16}, -\frac{33}{8})$</p>
<p>$\frac{x}{2} + \frac{y}{5} = -2 \times 10$ $x - y = 4 \times 2$</p> <p>$5x + 2y = -20$ $2x - 2y = 8$</p> <p>$7x = -12 \Rightarrow x = -\frac{12}{7}$</p> <p>In (2) $-\frac{12}{7} - y = 4 \Rightarrow y = -\frac{12}{7} - \frac{28}{7}$</p> <p>$(-\frac{12}{7}, -\frac{40}{7})$</p> <p>$y = -\frac{40}{7}$</p>	<p>$\frac{x}{2} - \frac{3y}{4} = -3 \times 4$ $\frac{x}{4} - \frac{y}{3} = 2 \times 12$</p> <p>$2x - 3y = -12 \times 3$ $3x - 4y = 24 \times 2$</p> <p>$6x - 9y = -36$ $6x - 8y = 48$) -</p> <p>$-y = -84 \Rightarrow y = 84$</p> <p>In (2) $\frac{x}{4} - \frac{84}{3} = 2 \Rightarrow \frac{x}{4} = 30$</p> <p>$\frac{x}{4} - 28 = 2 \Rightarrow x = 120$</p> <p>$(120, 84)$</p>

$$\begin{array}{l} \frac{3}{5}x - \frac{2}{3}y = 4 \quad | \times 15 \\ \frac{1}{2}x + \frac{1}{3}y = 10 \quad | \times 6 \end{array}$$

$$\left(15, \frac{15}{2}\right)$$

$$9x - 10y = 60$$

$$3x + 2y = 60 \quad | \times 5 \rightarrow$$

$$\rightarrow 15x + 10y = 300$$

$$\Rightarrow 24x = 360 \Rightarrow \boxed{x = 15}$$

$$\text{In(1)} \quad \frac{3}{8} \cdot \frac{3}{5} - \frac{2}{3}y = 4$$

$$9 - 4 = \frac{2}{3}y \Rightarrow \boxed{y = \frac{15}{2}}$$

$$\begin{array}{l} 0,2x - 0,3y = 13 \quad | \times 10 \\ 0,3x + 0,1y = 3 \quad | \times 30 \end{array}$$

$$2x - 3y = 130$$

$$9x + 3y = 90$$

$$11x = 220 \Rightarrow \boxed{x = 20}$$

$$\text{In(2)} \quad 0,3(20) + 0,1y = 3$$

$$6 - 3 = -0,1y$$

$$\boxed{y = -30}$$

$$\boxed{(20, -30)}$$

$$\begin{array}{l} 0,3x + 2y = -3 \quad | \times 10 \\ 1,2x - 7y = 33 \quad | \times 10 \end{array}$$

$$\begin{array}{l} 3x + 20y = -30 \quad | \times 4 \\ 12x - 70y = 330 \end{array}$$

$$\begin{array}{l} 12x + 80y = -120 \\ 12x - 70y = 330 \end{array} \quad -$$

$$150y = -450 \Rightarrow \boxed{y = -3}$$

In(1)

$$0,3x - 6 = -3$$

$$0,3x = 3 \Rightarrow \boxed{x = 10}$$

$$\boxed{(10, -3)}$$

$$\begin{array}{l} 0,5x - 0,3y = 0,15 \quad | \times 30 \\ -0,3x + 0,5y = -0,65 \quad | \times 50 \end{array}$$

$$15x - 9y = 4,5$$

$$-15x + 25y = -32,5$$

$$16y = -28 \Rightarrow \boxed{y = -\frac{28}{16} = -\frac{7}{4}}$$

In(1)

$$0,5x + \frac{3}{10} \cdot \frac{7}{4} = 0,15 = \frac{15}{100} = \frac{3}{20} = \frac{6}{40}$$

$$0,5x + \frac{21}{40} = \frac{3}{20}$$

$$0,5x = \frac{6}{40} - \frac{21}{40} = -\frac{15}{40} = -\frac{3}{8}$$

$$\text{Also} \quad \boxed{x = -\frac{3}{4}}$$

$$\boxed{\left(-\frac{3}{4}, -\frac{7}{4}\right)}$$