

P 4 5 練習問題 (宿題としてやってくる 20分程度)

1.

$$(1) \begin{cases} 4x + y = 4 \\ x + y = -5 \end{cases}$$

$$3x = 9 \quad x = 3$$

$$12 + y = 4$$

$$y = -8$$

$$(x, y) = (3, -8)$$

$$(2) \begin{cases} 2x + 5y = 18 \\ x = 2y \end{cases}$$

$$2(2y) + 5y = 18$$

$$4y + 5y = 18$$

$$9y = 18 \quad y = 2$$

$$x = 4$$

$$(x, y) = (4, 2)$$

$$(3) \begin{cases} 3x - 7y = 2 \\ 5x - 9y = 14 \end{cases}$$

$$15x - 35y = 10$$

$$15x - 27y = 42$$

$$-8y = -32$$

$$y = 4$$

$$3x - 28 = 2$$

$$3x = 30$$

$$x = 10$$

$$(x, y) = (10, 4)$$

$$(4) \begin{cases} 4x - 5y = 3 \\ 5y = 8x - 11 \end{cases}$$

$$-8x + 5y = -11$$

$$8x - 10y = 6$$

$$-5y = -5$$

$$y = -1$$

$$4x + 5 = 3$$

$$4x = -2$$

$$x = -\frac{1}{2}$$

$$(x, y) = \left(-\frac{1}{2}, -1\right)$$

2.

$$(1) \begin{cases} 3x + 2y = 2 \\ \frac{5}{4}x - \frac{y}{5} = 6 \end{cases}$$

$$25x - 4y = 120$$

$$6x + 4y = 4$$


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$$31x = 124$$

$$x = 4$$

$$12 + 2y = 2$$

$$2y = 10$$

$$y = 5$$

$$(x, y) = (4, 5)$$

$$(3) \begin{cases} 2(2x + y) = 6x + y + 9 \\ 5x - 4y + 30 = 0 \end{cases}$$

$$4x + 2y - 6x - y = 9$$

$$-2x + y = 9$$

$$-8x + 4y = 36$$

$$5x - 4y = -30$$


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$$-3x = 6 \quad x = -2$$

$$4 + y = 9 \quad y = 5$$

$$(x, y) = (-2, 5)$$

$$(2) \begin{cases} x - 3y = 19 \\ 0.2x - 0.5y = 3 \end{cases}$$

$$2x - 5y = 30$$

$$2x - 6y = 38$$


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$$y = -8$$

$$x + 24 = 19$$

$$x = -5$$

$$(x, y) = (-5, -8)$$

$$(4) \begin{cases} 4(x + 2) - 3(y - 2) = 16 \\ 2(3x - 2y) - x = 0 \end{cases}$$

$$4x + 8 - 3y + 6 = 16$$

$$4x - 3y = 2$$

$$6x - 4y - x = 0$$

$$5x - 4y = 0$$

$$16x - 12y = 8$$

$$15x - 12y = 0$$


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$$x = 8$$

$$40 - 4y = 0$$

$$-4y = -40$$

$$y = 10$$

$$(x, y) = (8, 10)$$

3.

$$\frac{x}{3} + \frac{y}{2} = 0, \quad 6x + 0, \quad 7y = 2$$

3. 2. 10の公倍数は30

全ての辺に30をかけましょう

$$10x + 15y = 18x + 21y = 60$$

$$\begin{cases} 10x + 15y = 60 \\ 18x + 21y = 60 \end{cases}$$

$$90x + 135y = 540$$

$$90x + 105y = 300$$

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$$30y = 240$$

$$y = 8$$

$$10x + 120 = 60$$

$$10x = -60 \quad x = -6$$

$$(x, y) = (-6, 8)$$