

$$x + 3 = 5$$

$$x = 5 - 3$$

$$x = 2$$

授業プリント#12 (その 2) web

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$$x - 8 = 6$$

$$x = 6 + 8$$

$$x = 14$$

$$-2 + x = -9$$

$$x = -9 + 2$$

$$x = -7$$

$$x - 7 = -2$$

$$x = -2 + 7$$

$$x = 5$$

2 (1)

$$2x = 8$$

$$\frac{2x}{\textcolor{red}{2}} = \frac{8}{\textcolor{red}{2}}$$

$$x = 4$$

2 (2)

$$3x = -27$$

$$\frac{3x}{\textcolor{red}{3}} = \frac{-27}{\textcolor{red}{3}}$$

$$x = -9$$

2 (3)

$$\frac{1}{4}x = 5$$

$$4 \times \frac{1}{4}x = 5 \times 4$$

$$x = 20$$

2 (4)

$$12x = 18$$

$$\frac{12x}{12} = \frac{18}{12}$$

$$x = \frac{3}{2}$$

3 (1)

$$3x - 2 = 4$$

$$3x = 4 + 2$$

$$3x = 6$$

$$x = 2$$

3 (2)

$$1 - x = 2x - 1$$

$$-x - 2x = -1 - 1$$

$$-3x = -2$$

$$\frac{-3x}{-3} = \frac{-2}{-3}$$

$$x = \frac{2}{3}$$

$$2x - 7 = 3$$

$$2x = 3 + 7$$

$$2x = 10$$

$$x = 5$$

3 (4)

$$-5x + 5 = 0$$

$$-5x = -5$$

$$x = 1$$

$$3x + 1 = 5$$

$$3x = 5 - 1$$

$$3x = 4$$

$$x = \frac{4}{3}$$

$$7x = -2x - 27$$

$$7x + 2x = -27$$

$$9x = -27$$

$$x = -3$$

$$3x - 1 = 2$$

$$3x = 2 + 1$$

$$3x = 3$$

$$x = 1$$

$$4x = -2x + 18$$

$$4x + 2x = 18$$

$$6x = 18$$

$$x = 3$$

$$4x - 15 = -19$$

$$4x = -19 + 15$$

$$4x = -4$$

$$x = -1$$

$$3x = 7x + 8$$

$$3x - 7x = 8$$

$$-4x = 8$$

$$x = -2$$

$$x - 5 = 3x + 1$$

$$x - 3x = 1 + 5$$

$$-2x = 6$$

$$x = -3$$

$$2x + 3 = 7$$

$$2x = 7 - 3$$

$$2x = 4$$

$$x = 2$$

$$6x + 7 = 4x - 1$$

$$6x - 4x = -1 - 7$$

$$2x = -8$$

$$x = -4$$

$$9x - 5 = 2x + 23$$

$$9x - 2x = 23 + 5$$

$$7x = 28$$

$$x = 4$$

$$6x + 30 = 0$$

$$6x = -30$$

$$x = -5$$

$$-2x - 5 = 3x$$

$$-2x - 3x = 5$$

$$-5x = 5$$

$$x = -1$$

$$3x + 7 = -2$$

$$3x = -2 - 7$$

$$3x = -9$$

$$x = -3$$

$$2x - 3 = 5$$

$$2x = 5 + 3$$

$$2x = 8$$

$$x = 4$$

$$9x = 4 - 7x$$

$$9x + 7x = 4$$

$$16x = 4$$

$$x = \frac{1}{4}$$

$$4x + 3 = 8x - 10$$

$$4x - 8x = -10 - 3$$

$$-4x = -13$$

$$x = \frac{13}{4}$$

3 (2)

$$-\frac{2}{3}x = 5$$

$$\left(-\frac{3}{2}\right) \times -\frac{2}{3}x = 5 \times \left(-\frac{3}{2}\right)$$

$$x = -\frac{15}{2}$$

$$3x = 3 - 2x$$

$$3x + 2x = 3$$

$$5x = 3$$

$$x = \frac{3}{5}$$

$$x - 4 = 5x - 10$$

$$x - 5x = -10 + 4$$

$$-4x = -6$$

$$x = \frac{3}{2}$$

$$2x - 1 = 5$$

$$2x = 5 + 1$$

$$2x = 6$$

$$x = 3$$

$$12x + 1 = 8x - 5$$

$$12x - 8x = -5 - 1$$

$$4x = -6$$

$$x = -\frac{3}{2}$$

$$3x - 2(x - 1) = 8$$

$$3x - 2x + 2 = 8$$

$$x + 2 = 8$$

$$x = 8 - 2$$

$$x = 6$$

$$4x + 9 = 1$$

$$4x = 1 - 9$$

$$4x = -8$$

$$x = -2$$

$$3x - 2 = 5x + 4$$

$$3x - 5x = 4 + 2$$

$$-2x = 6$$

$$x = -3$$

$$7x - (x - 8) = 2x - 4$$

$$7x - x + 8 = 2x - 4$$

$$6x + 8 = 2x - 4$$

$$6x - 2x = -4 - 8$$

$$4x = -12$$

$$x = -3$$

$$4x - 7 = 5$$

$$4x = 5 + 7$$

$$4x = 12$$

$$x = 3$$

$$5x = 7x - 8$$

$$5x - 7x = -8$$

$$-2x = -8$$

$$x = 4$$

$$5x - 4 = -9x + 38$$

$$5x + 9x = 38 + 4$$

$$14x = 42$$

$$x = 3$$

$$14x - 15 = 9x + 5$$

$$14x - 9x = 5 + 15$$

$$5x = 20$$

$$x = 4$$

$$2x + 6 - 5(x + 2) = 5$$

$$2x + 6 - 5x - 10 = 5$$

$$-3x - 4 = 5$$

$$-3x = 5 + 4$$

$$-3x = 9$$

$$x = -3$$

$$4x - 9 = 6x + 3$$

$$4x - 6x = 3 + 9$$

$$-2x = 12$$

$$x = -6$$

$$3(x+2) = x-2$$

$$3x+6 = x-2$$

$$3x-x = -2-6$$

$$2x = -8$$

$$x = -4$$

$$3x = 9$$

$$x = 3$$

$$4x - 8 = 7x - 14$$

$$4x - 7x = -14 + 8$$

$$-3x = -6$$

$$x = 2$$

$$3(x+2) = x-4$$

$$3x+6 = x-4$$

$$3x-x = -4-6$$

$$2x = -10$$

$$x = -5$$

$$\frac{1}{2}(x-3) = 3x-2$$

$$2 \times \frac{1}{2}(x-3) = (3x-2) \times 2$$

$$x-3 = 6x-4$$

$$x-6x = -4+3$$

$$-5x = -1$$

$$x = \frac{1}{5}$$

$$3x - 1 = 4x + 2$$

$$3x - 4x = 2 + 1$$

$$-x = 3$$

$$x = -3$$

$$3 - 2x = 7x - 6$$

$$-2x - 7x = -6 - 3$$

$$-9x = -9$$

$$x = 1$$

$$2x + 5 = 4x + 1$$

$$2x - 4x = 1 - 5$$

$$-2x = -4$$

$$x = 2$$

$$8 + 3x = -4 - x$$

$$3x + x = -4 - 8$$

$$4x = -12$$

$$x = -3$$

$$4(3x + 4) + 1 = -7$$

$$12x + 16 + 1 = -7$$

$$12x + 17 = -7$$

$$12x = -7 - 17$$

$$12x = -24$$

$$x = -2$$

$$2(x-1) = 3x+4$$

$$2x-2 = 3x+4$$

$$2x-3x = 4+2$$

$$-x = 6$$

$$x = -6$$

$$7 - x = 4x + 2$$

$$-x - 4x = 2 - 7$$

$$-5x = -5$$

$$x = 1$$

$$9x + 4 = 7x - 6$$

$$9x - 7x = -6 - 4$$

$$2x = -10$$

$$x = -5$$

$$5x - 7 = 3(x + 1)$$

$$5x - 7 = 3x + 3$$

$$5x - 3x = 3 + 7$$

$$2x = 10$$

$$x = 5$$

$$2x + 1 = 10 + 5x$$

$$2x - 5x = 10 - 1$$

$$-3x = 9$$

$$x = -3$$

$$6 - x = 2x$$

$$-x - 2x = -6$$

$$-3x = -6$$

$$x = 2$$

$$\frac{x}{3} - \frac{2x-1}{2} = 1$$

$$6 \times \left(\frac{x}{3} - \frac{2x-1}{2} \right) = 1 \times 6$$

$$2x - 3(2x-1) = 6$$

$$2x - 6x + 3 = 6$$

$$-4x = 6 - 3$$

$$-4x = 3$$

$$x = -\frac{3}{4}$$

$$4 - 9x = -3x + 1$$

$$-9x + 3x = 1 - 4$$

$$-6x = -3$$

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

$$-3(2x - 5) + 7x = 5x + 5$$

$$-6x + 15 + 7x = 5x + 5$$

$$x + 15 = 5x + 5$$

$$x - 5x = 5 - 15$$

$$-4x = -10$$

$$x = \frac{5}{2}$$

$$-(x-1) = -2x+1$$

$$-x+1 = -2x+1$$

$$-x+2x = 1-1$$

$$x = 0$$

$$x = 2(x+1)$$

$$x = 2x + 2$$

$$x - 2x = 2$$

$$-x = 2$$

$$x = -2$$

$$6x - 4 = -x + 3$$

$$6x + x = 3 + 4$$

$$7x = 7$$

$$x = 1$$

$$\frac{1}{2}x + 2 = \frac{2}{3}$$

$$6 \times \left(\frac{1}{2}x + 2 \right) = \frac{2}{3} \times 6$$

$$3x + 12 = 4$$

$$3x = 4 - 12$$

$$3x = -8$$

$$x = -\frac{8}{3}$$

$$5(2-x) = x-8$$

$$10-5x = x-8$$

$$-5x-x = -8-10$$

$$-6x = -18$$

$$x = 3$$

$$5 + 2(3x - 1) = -3 + 4x$$

$$5 + 6x - 2 = -3 + 4x$$

$$6x + 3 = -3 + 4x$$

$$6x - 4x = -3 - 3$$

$$2x = -6$$

$$x = -3$$

$$4x + 5 = 17$$

$$4x = 17 - 5$$

$$4x = 12$$

$$x = 3$$

$$3(x+2) = x-3$$

$$3x+6 = x-3$$

$$3x-x = -3-6$$

$$2x = -9$$

$$x = -\frac{9}{2}$$

$$x - 1 = 8 - 4x$$

$$x + 4x = 8 + 1$$

$$5x = 9$$

$$x = \frac{9}{5}$$

$$2x + 7 = 2(3x - 4) - 5$$

$$2x + 7 = 6x - 8 - 5$$

$$2x + 7 = 6x - 13$$

$$2x - 6x = -13 - 7$$

$$-4x = -20$$

$$x = 5$$

$$2(x - 2) = -x + 2$$

$$2x - 4 = -x + 2$$

$$2x + x = 2 + 4$$

$$3x = 6$$

$$x = 2$$

$$4(2x - 1) = 5(x + 4)$$

$$8x - 4 = 5x + 20$$

$$8x - 5x = 20 + 4$$

$$3x = 24$$

$$x = 8$$

$$3x - (7x - 4) = 0$$

$$3x - 7x + 4 = 0$$

$$-4x = -4$$

$$x = 1$$

$$x = 3(2 - x) + 4$$

$$x = 6 - 3x + 4$$

$$x + 3x = 10$$

$$4x = 10$$

$$x = \frac{5}{2}$$

$$4(2x - 1) = 3(7 + 4x) - 1$$

$$8x - 4 = 21 + 12x - 1$$

$$8x - 4 = 20 + 12x$$

$$8x - 12x = 20 + 4$$

$$-4x = 24$$

$$x = -6$$

$$0.3(x - 1.5) = 0.2x + 1$$

$$0.3x - 0.45 = 0.2x + 1$$

$$100 \times (0.3x - 0.45) = (0.2x + 1) \times 100$$

$$30x - 45 = 20x + 100$$

$$30x - 20x = 100 + 45$$

$$10x = 145$$

$$x = \frac{29}{2} (= 14.5)$$

3 (70) 別解

$$0.3(x - 1.5) = 0.2x + 1$$

$$100 \times 0.3(x - 1.5) = (0.2x + 1) \times 100$$

$$10 \times 0.3(10 \times (x - 1.5)) = 20x + 100$$

$$3(10x - 15) = 20x + 100$$

$$30x - 45 = 20x + 100$$

$$30x - 20x = 100 + 45$$

$$10x = 145$$

$$x = \frac{29}{2} (= 14.5)$$

$$7x - 2(3x - 5) = 4x + 3$$

$$7x - 6x + 10 = 4x + 3$$

$$x + 10 = 4x + 3$$

$$x - 4x = 3 - 10$$

$$-3x = -7$$

$$x = \frac{7}{3}$$

$$-2(x+5) = 3x+10$$

$$-2x-10 = 3x+10$$

$$-2x-3x = 10+10$$

$$-5x = 20$$

$$x = -4$$

$$\frac{1}{3}x - 4 = \frac{1}{5}x$$

$$15 \times \left(\frac{1}{3}x - 4 \right) = \frac{1}{5}x \times 15$$

$$5x - 60 = 3x$$

$$5x - 3x = 60$$

$$2x = 60$$

$$x = 30$$

$$4(x+1) = x-5$$

$$4x+4 = x-5$$

$$4x-x = -5-4$$

$$3x = -9$$

$$x = -3$$

$$\frac{3x-2}{4} = 2x-3$$

$$4 \times \frac{3x-2}{4} = (2x-3) \times 4$$

$$3x-2 = 8x-12$$

$$3x-8x = -12+2$$

$$-5x = -10$$

$$x = 2$$

$$\frac{5x-2}{3} = \frac{3x+1}{2}$$

$$6 \times \frac{5x-2}{3} = \frac{3x+1}{2} \times 6$$

$$2(5x-2) = 3(3x+1)$$

$$10x-4 = 9x+3$$

$$10x-9x = 3+4$$

$$x = 7$$

$$\frac{2}{3}x + \frac{1}{2} = \frac{1}{6}x - 2$$

$$6 \times \left(\frac{2}{3}x + \frac{1}{2} \right) = \left(\frac{1}{6}x - 2 \right) \times 6$$

$$4x + 3 = x - 12$$

$$4x - x = -12 - 3$$

$$3x = -15$$

$$x = -5$$

$$-3(4-x) = 4+5x$$

$$-12+3x = 4+5x$$

$$3x-5x = 4+12$$

$$-2x = 16$$

$$x = -8$$

$$3 + 2(2x - 3) = 3x + 4$$

$$3 + 4x - 6 = 3x + 4$$

$$4x - 3 = 3x + 4$$

$$4x - 3x = 4 + 3$$

$$x = 7$$

$$\frac{x-3}{2} = -\frac{x}{5}$$

$$10 \times \frac{x-3}{2} = -\frac{x}{5} \times 10$$

$$5(x-3) = -2x$$

$$5x-15 = -2x$$

$$5x+2x = 15$$

$$7x = 15$$

$$x = \frac{15}{7}$$

$$4 + 7(2x + 1) = 8x - 7$$

$$4 + 14x + 7 = 8x - 7$$

$$14x + 11 = 8x - 7$$

$$14x - 8x = -7 - 11$$

$$6x = -18$$

$$x = -3$$

$$3(x-1) = x$$

$$3x-3 = x$$

$$3x-x = 3$$

$$2x = 3$$

$$x = \frac{3}{2}$$

$$3(x-1) = 2(x+3)$$

$$3x-3 = 2x+6$$

$$3x-2x = 6+3$$

$$x = 9$$

$$2x - 8 = 3(4 - x)$$

$$2x - 8 = 12 - 3x$$

$$2x + 3x = 12 + 8$$

$$5x = 20$$

$$x = 4$$

$$3x - 5 = 4(2x - 5)$$

$$3x - 5 = 8x - 20$$

$$3x - 8x = -20 + 5$$

$$-5x = -15$$

$$x = 3$$

$$2(7 - 2x) = -7(x - 6) + 2$$

$$14 - 4x = -7x + 42 + 2$$

$$14 - 4x = -7x + 44$$

$$-4x + 7x = 44 - 14$$

$$3x = 30$$

$$x = 10$$

$$\frac{2x}{3} - \frac{6x+5}{4} = \frac{5}{6}$$

$$12 \times \left(\frac{2x}{3} - \frac{6x+5}{4} \right) = \frac{5}{6} \times 12$$

$$8x - 3(6x+5) = 10$$

$$8x - 18x - 15 = 10$$

$$-10x = 10 + 15$$

$$-10x = 25$$

$$x = -\frac{5}{2}$$

$$0.7x - 1.3 = 0.4x + 2$$

$$10 \times (0.7x - 1.3) = (0.4x + 2) \times 10$$

$$7x - 13 = 4x + 20$$

$$7x - 4x = 20 + 13$$

$$3x = 33$$

$$x = 11$$

$$\frac{2-5x}{3} = x-2$$

$$3 \times \frac{2-5x}{3} = (x-2) \times 3$$

$$2-5x = 3(x-2)$$

$$2-5x = 3x-6$$

$$-5x-3x = -6-2$$

$$-8x = -8$$

$$x = 1$$

$$0.3(x+1) = -0.5x + 1$$

$$10 \times 0.3(x+1) = (-0.5x + 1) \times 10$$

$$3(x+1) = -5x + 10$$

$$3x + 3 = -5x + 10$$

$$3x + 5x = 10 - 3$$

$$8x = 7$$

$$x = \frac{7}{8}$$

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

$$12 \times \frac{2(x+6)}{3} = \frac{x-4}{4} \times 12$$

$$8(x+6) = 3(x-4)$$

$$8x + 48 = 3x - 12$$

$$8x - 3x = -12 - 48$$

$$5x = -60$$

$$x = -12$$

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

$$30 \times \left(\frac{x+1}{2} - \frac{3-x}{5} \right) = \frac{2(x-1)}{3} \times 30$$

$$15(x+1) - 6(3-x) = 20(x-1)$$

$$15x + 15 - 18 + 6x = 20x - 20$$

$$21x - 3 = 20x - 20$$

$$21x - 20x = -20 + 3$$

$$x = -17$$

$$0.3x - 1.3 = 1.4$$

$$10 \times (0.3x - 1.3) = 1.4 \times 10$$

$$3x - 13 = 14$$

$$3x = 14 + 13$$

$$3x = 27$$

$$x = 9$$

$$\frac{-2x+3}{3} = \frac{5-x}{2}$$

$$6 \times \frac{-2x+3}{3} = \frac{5-x}{2} \times 6$$

$$2(-2x+3) = 3(5-x)$$

$$-4x+6 = 15-3x$$

$$-4x+3x = 15-6$$

$$-x = 9$$

$$x = -9$$

$$\frac{x}{3} - 5 = \frac{5}{6}x - 1$$

$$6 \times \left(\frac{x}{3} - 5 \right) = \left(\frac{5}{6}x - 1 \right) \times 6$$

$$2x - 30 = 5x - 6$$

$$2x - 5x = -6 + 30$$

$$-3x = 24$$

$$x = -8$$

$$\frac{7-x}{5} = 0.3(x-2) + 4$$

$$10 \times \frac{7-x}{5} = (0.3(x-2) + 4) \times 10$$

$$2(7-x) = 3(x-2) + 40$$

$$14 - 2x = 3x - 6 + 40$$

$$14 - 2x = 3x + 34$$

$$-2x - 3x = 34 - 14$$

$$-5x = 20$$

$$x = -4$$

$$\frac{2}{3}x - \frac{1}{2} = \frac{3}{4}x$$

$$12 \times \left(\frac{2}{3}x - \frac{1}{2} \right) = \frac{3}{4}x \times 12$$

$$8x - 6 = 9x$$

$$8x - 9x = 6$$

$$-x = 6$$

$$x = -6$$

$$\frac{x+1}{3} = \frac{6-x}{4}$$

$$12 \times \frac{x+1}{3} = \frac{6-x}{4} \times 12$$

$$4(x+1) = 3(6-x)$$

$$4x+4 = 18-3x$$

$$4x+3x = 18-4$$

$$7x = 14$$

$$x = 2$$

$$0.4x + 1.5 = 0.7x + 0.5$$

$$10 \times (0.4x + 1.5) = (0.7x + 0.5) \times 10$$

$$4x + 15 = 7x + 5$$

$$4x - 7x = 5 - 15$$

$$-3x = -10$$

$$x = \frac{10}{3}$$

$$1 - \frac{x-2}{6} = 2 - \frac{x}{2}$$

$$6 \times \left(1 - \frac{x-2}{6}\right) = \left(2 - \frac{x}{2}\right) \times 6$$

$$6 - (x-2) = 12 - 3x$$

$$6 - x + 2 = 12 - 3x$$

$$-x + 8 = 12 - 3x$$

$$-x + 3x = 12 - 8$$

$$2x = 4$$

$$x = 2$$