

第二十一課

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

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

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

$$2x + 2 - 3x - 9 = x - 1 + 2$$

$$2x - 3x - x = -1 + 2 - 2 + 9$$

$$-2x = 8$$

$$x = -4$$

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

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

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

$$-2x - 2 - 3x - 9 = 2x - 2 + 4$$

$$-2x - 3x - 2x = -2 + 4 + 2 + 9$$

$$-7x = 13$$

$$x = -\frac{13}{7}$$

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

$$2x - 3 = 3x + 6 - 1$$

$$-x = 5 + 3$$

$$x = -8$$

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

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

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

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

$$-x = 7$$

$$x = -7$$

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

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

$$6x - 6 + 2x - 4 = 2x + 4 + 1$$

$$8x - 10 = 2x + 5$$

$$8x - 2x = 5 + 10$$

$$6x = 15$$

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

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

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

$$-2x - 2 + 6x - 12 = 2x - 2 + 1$$

$$4x - 14 = 2x - 1$$

$$2x = 13$$

$$x = \frac{13}{2}$$

$$7. -(x + 2) + 3(x - 1) = 4(x + 1) - \frac{1}{2}$$

$$-2(x + 2) + 6(x - 1) = 8(x + 1) - 1$$

$$-2x - 4 + 6x - 6 = 8x + 8 - 1$$

$$4x - 10 = 8x + 7$$

$$-4x = 17$$

$$x = -\frac{17}{4}$$

$$8. -2(x - 1) + 3(x - 4) = 2(x + 2) - 4$$

$$-2x + 2 + 3x - 12 = 2x + 4 - 4$$

$$x - 10 = 2x$$

$$-x = 10$$

$$x = -10$$

$$9. 2(x + 2) + (2x - 3) = (x + 2) + 1$$

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

$$4x + 1 = x + 3$$

$$3x = 2$$

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

$$10. (x + 2) - 2(x - 1) = x + 4$$

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

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

$$-2x = 0$$

$$x = 0$$

$$11. 2(x + 2) - (x - 1) = 3(x - 1)$$

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

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

$$-2x = -8$$

$$x = 4$$

$$12. -(x + 2) + 3(x - 2) = (x - 1) + \frac{1}{2}$$

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

$$-2x - 4 + 6x - 12 = 2x - 2 + 1$$

$$4x - 16 = 2x - 1$$

$$2x = 15$$

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

$$13. (x + 1) + (x + 2) = (x + 4)$$

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

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

$$x = 1$$

$$14. (x - 1) + (x - 2) = (x + 1)$$

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

$$x = 4$$

$$15. (x - 1) + 2(x - 2) = (x + 3)$$

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

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

$$2x = 8$$

$$x = 4$$

習題

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

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

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

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

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

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

7. $(x+2) - \frac{1}{2}(x-1) = (x+1)$

8. $(x+2) + \frac{1}{2}(x-1) = \frac{1}{2}(x-1)$

9. $(x+1) + (2x-1) = (x+2) - \frac{1}{2}$

10. $-(x+1) + (2x-1) = \frac{1}{2}(x+2)$

11. $3(x-1) + (x-1) = -2(2x-1)$

12. $-(1-x) + 2(x-1) = \frac{1}{2}(x-2)$

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

14. $-(2x-1) - 3(x+1) = 2(x-2)$

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

答案

1. $x = -\frac{11}{3}$

2. $x = 1$

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

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

5. $x = 0$

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

7. $x = 3$

8. $x = -2$

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

10. $x = 6$

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

12. $x = \frac{4}{5}$

13. $x = -13$

14. $x = \frac{2}{7}$

15. $x = -2$