第二十一課

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

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

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

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

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

 $-2x=8$

 $x=-4$

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

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

 $-2\left(x+1\right)-3\left(x+3\right)=2\left(x-1\right)+4$

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

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

 $-7x=13$

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

3.$\left(x-1\right)+\left(x-2\right)=3\left(x+2\right)-1$

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

 $-x=5+3$

 $x=-8$

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

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

 $2x-3=3x+4$

 $2x-3x=4+3$

 $-x=7$

 $x=-7$

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

 $6\left(x-1\right)+2\left(x-2\right)=2\left(x+2\right)+1$

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

 $8x-10=2x+5$

 $8x-2x=5+10$

 $6x=15$

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

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

 $-2\left(x+1\right)+6\left(x-2\right)=2\left(x-1\right)+1$

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

 $4x-14=2x-1$

 $2x=13$

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

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

 $-2\left(x+2\right)+6\left(x-1\right)=8\left(x+1\right)-1$

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

 $4x-10=8x+7$

 $-4x=17$

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

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

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

 $x-10=2x$

 $-x=10$

 $x=-10$

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.$2\left(x+2\right)-\left(x-1\right)=3\left(x-1\right)$

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

 $x+5=3x-3$

 $-2x=-8$

 $x=4$

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

 $-2\left(x+2\right)+6\left(x-2\right)=2\left(x-1\right)+1$

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

 $4x-16=2x-1$

 $2x=15$

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

13.$\left(x+1\right)+\left(x+2\right)=\left(x+4\right)$

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

 $2x+3=x+4$

 $x=1$

14.$\left(x-1\right)+\left(x-2\right)=\left(x+1\right)$

 $2x-3=x+1$

 $x=4$

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

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

 $3x-5=x+3$

 $2x=8$

 $x=4$

習題

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

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

3.$\left(2x-1\right)-\left(x-1\right)=3\left(x+2\right)-1$

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

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

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

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

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

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

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

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

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

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

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

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

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.$x=-2$