```
#include <stdio.h>


    int i,j,x,y,z,xc,yc,zc,at,bt,ct;
    int d1[]={1 ,2, 1, 3, 7, 6, 2, 9, 8, 1, 5, 4};
    int d2[]={3 ,10, 8, 11, 14, 15};
    int a[20],b[20],c[20];

int siz_arr(int arr[20])
{

    for(i=0;i<20;i++)
       {
           if(arr[i]==100)
           {
               return i;
           }

       }
}


void output(int arr[20],int t)
{
    i=0;
    switch(t)
    {
        case 1:
            printf("%d=%d+%d\n",d2[1],d1[arr[0]],d1[arr[1]]);
            d1[arr[0]]=100;
            d1[arr[1]]=100;
            break;
        case 2:
            printf("%d=%d+%d\n",d2[3],d1[arr[0]],d1[arr[1]]);

            d1[arr[0]]=100;
            d1[arr[1]]=100;
            break;
        case 3:
            printf("%d=%d+%d\n",d2[5],d1[arr[0]],d1[arr[1]]);

            d1[arr[0]]=100;
            d1[arr[1]]=100;
            break;
        case 4:
            while(i>-5)
            {
                if((d1[arr[i]]!=100)&&(d1[arr[i+1]]!=100))
```

```
            {
                printf("%d=%d+%d\n",d2[1],d1[arr[i]],d1[arr[i+1]]);
                d1[arr[i]]=100;
                d1[arr[i+1]]=100;
                break;
            }
            i+=2;
        }

        break;
    case 5:
        while(i>-5)
        {
            if((d1[arr[i]]!=100)&&(d1[arr[i+1]]!=100))
            {
                printf("%d=%d+%d\n",d2[3],d1[arr[i]],d1[arr[i+1]]);
                d1[arr[i]]=100;
                d1[arr[i+1]]=100;
                break;
            }
            i+=2;
        }

        break;
    case 6:
        while(i>-5)
        {
            if((d1[arr[i]]!=100)&&(d1[arr[i+1]]!=100))
            {

                printf("%d=%d+%d\n",d2[5],d1[arr[i]],d1[arr[i+1]]);
                d1[arr[i]]=100;
                d1[arr[i+1]]=100;
                break;
            }
            i+=2;
        }

        break;
    }
}


int main()
{

    for(i=0;i<13;i++)
    {
```

```
    x=d2[1]-d1[i];
    y=d2[3]-d1[i];
    z=d2[5]-d1[i];
    for(j=(i+1);j<12;j++)
    {

            if((x==d1[j]))
            {
                a[at]=j;
                a[++at]=i;
                at++;
            }

            if((y==d1[j]))
            {
                b[bt]=j;
                b[++bt]=i;
                bt++;
            }
            if((z==d1[j]))
            {
                c[ct]=j;
                c[++ct]=i;
                ct++;
            }



    }
}
a[at]=100;
b[bt]=100;
c[ct]=100;

xc=siz_arr(a);
yc=siz_arr(b);
zc=siz_arr(c);


if((zc>0)&&((zc<yc)&&(zc<xc)))
{
    output(c,3);
}
if((yc>0)&&((yc<xc)&&(yc<zc)))
{
    output(b,2);
}
```

```
    if((xc>0)&&((xc<yc)&&(xc<zc)))
    {
        output(a,1);
    }

    if((zc>0)&&((zc>yc)&&(zc<xc))||(zc<yc)&&(zc>xc))
    {
        output(c,6);
    }
    if((yc>0)&&((yc>xc)&&(yc<zc))||(yc<xc)&&(yc>zc))
    {
        output(b,5);

    }if((xc>0)&&((xc>yc)&&(xc<zc))||(xc<yc)&&(xc>zc))
    {
        output(a,4);
    }
    if((zc>0)&&((zc>=yc)&&(zc>=xc)))
    {
        output(c,6);
    }
    if((yc>0)&&((yc>=xc)&&(yc>=zc)))
    {
        output(b,5);
    }
    if((xc>0)&&((xc>=yc)&&(xc>=zc)))
    {
        output(a,4);
    }


        return 0;
}
```