

```

#include <stdio.h>
int main()
{
    int auto1=70, auto2=150;
    if (auto1!=0 && auto2!=0)
    {
        while(auto1 != auto2)
        {
            auto1++;
            auto2--;
        }
    }
    return 0;
}

```

```

1  # s1 <-> auto1    s2 <-> auto2
2      addi s1,zero,70
3      addi s2,zero,150
4      beq s1,zero,L1
5      beq s2,zero,L1
6      j while1
7  L2:   addi s1,s1,1 #primera instruccion del bucle
8      addi s2,s2,-1
9  while1: bne s1,s2,L2 #condicion del bucle
10  L1:   nop

```

```

#include <stdio.h>
int main ()
{
    int n=0, num=0, max=21;

    for (int i=0; i<max; i++)
    {
        for (int j=0; (n<max || i<=n) && (n+i)%2==0; j++)
        {
            num++;
        }
        n++;
    }
    return 0;
}

```

```

1  # s1<->n  s2<->num  s3<->max  s4<->i  s5<->j
2      addi s1,zero,0  # variables
3      addi s2,zero,0
4      addi s3,zero,21
5      addi s4,zero,0  #instruction i=0
6      j for1
7  L4:  addi s5,zero,0  #instruction j=0
8      j for2
9  L3:  addi s2,s2,1    #instruction num++
10     addi s5,s5,1    #instruction j++
11  for2: blt s1,s3,L1  #instruction n<max (for2 condition)
12     bgt s4,s1,L2    #instruction i<=n
13  L1:  add t0,s1,s4   #instruction (n+i)
14     andi t1, t0,1   #instruction (n+i)%2
15     beq t1,zero,L3  #instruction (n+i)%2==0
16  L2:  addi s1,s1,1   #instruction n++
17     addi s4,s4,1    #instruction i++
18  for1: blt s4,s3,L4  #instruction i<max (for1 condition)
19     nop

```