Ste	а	b	sum	output
р				
1	10			
2	10	5		
3	10	5	15	
4	10	5	15	15

```
demo.py > ...

1    a = 10
2    b = 5
3    sum = a + b
4    print(sum)
```

Ste	а	b	output
р			
1	10		
2	10	5	
3	10	5	10
4	10	5	b

```
main.py > ...

1    a = 10
2    b = 5
3    print(a)
4    print("b")
```

St ep	а	b	output
1	10		
2	10	10	
3	10	10	b

```
main.py > ...

1    a = 10

2    b = a

3    print("b")
```

Ste	а	b	output
р			
1	10		
2	10	10	
3	10	10	10

```
main.py > ...

1    a = 10
2    b = a
3    print(b)
```

STEP	а	a<10	Output
1	10		
2	10	False	
3	10		No

```
main.py > ...

1    a = 10
2    if a < 10:
3        print("Yes")
4    else:
5        print("No")</pre>
```

step	а	a<=10	output
1	10		
2	10	True	
3	10		Yes

```
main.py > ...

1    a = 10
2    if a <= 10:
3        print("Yes")
4    else:
5        print("No")</pre>
```

step	а	a<=10	a==10	a>=10	Output
1	10				
2	10	True			
3	10				Yes

```
🥐 main.py 🗦 ...
    a = 10
  2 if a <= 10:
  3
          print("Yes")
      elif a == 10:
          print("No")
  6
     elif a >= 10:
          print("Okay")
```

						_	
Step	а	a<=10	a==10	a>=10	output		
						<mark>🥐</mark> ma	ain.py >
1	10					1	a = 10
2	10	True				2	if a <= 10:
3	10				Yes	3	print(' if a == 10:
						4	if a == 10:
4	10		True			5	print(' if a >= 10:
5	10				No	6	if a >= 10:
						_ 7	print('
6	10			True			
10	10				Okay		

```
"Yes")
"No")
"Okay")
```

Step	а	b	a<10 and b>10	a==10 and b==5	a>=10 and b<=10	output
1	10					
2	10	5				
3	10	5	False			
4	10	5		True		
5	10	5				No
6	10	5			True	
7	10	5				Okay

```
e main.py > ...
      a = 10
  2 b = 5
  3 if a < 10 and b > 10:
          print("Yes")
      elif a == 10 and b == 5:
  6
          print("No")
      if a >= 10 and b <= 10:
          print("Okay")
  8
```

Step	а	b	a<10and b>10	a==10an d b==5	a>=10 and b<=10	output
1	10					
2	10	5				
3	10	5	False			
4	10	5		True		
5	10	5				No

```
e main.py > ...
      a = 10
  2 b = 5
  3 if a < 10 and b > 10:
          print("Yes")
      elif a == 10 and b == 5:
          print("No")
  6
      elif a >= 10 and b <= 10:
          print("Okay")
```

Step	а	b	a<10 or b>5	a==10 or b==5	a>=10 or b<=10	output
1	10					
2	10	5				
3	10	5	False			
4	10	5		True		
5	10	5				No

```
e main.py > ...
  2 b = 5
  3 \vee if a < 10 \text{ or } b > 5:
          print("Yes")
  5 \vee elif a == 10 or b == 5:
       print("No")
  7 \sim elif a >= 10 or b <= 10:
     print("Okay")
```

Step	а	b	a<10 and b>=5	a==10 or b==5	a>=10 or b<=10	output
1	10					
2	10	5				
3	10	5	True			
4	10	5				Yes
5	10	5		True		
6	10	5				No
7	10	5			True	
8	10	5				Okay

```
e main.py > ...
  3 \vee if a < 10 or b >= 5:
           print("Yes")
  5 \vee elif a == 10 or b == 5:
           print("No")
  7 \vee if a >= 10 or b <= 10:
           print("Okay")
```

Step	n1	n2	sum	output
1	3			
2	3	5		
3	3	5	3+5	
4	3	5	3+5	35

If user enter first : 3 and second 5

```
main.py > ...

1    n1 = input()
2    n2 = input()
3    sum = n1 + n2
4    print(sum)
```

Ste p	n1	n2	sum	output
1	3			
2	3	5		
3	3	5	3+5	
4	3	5	3+5	8

If user enter first: 3 and second 5

```
main.py > [@] n2

1     n1 = int(input())
2     n2 = int(input())
3     sum = n1 + n2
4     print(sum)
```

step	n	i	output
1	3		
2	3	0	
3	3	0	3
4	3	1	
5	3	1	3
6	3	2	
7	3	2	3

```
# If user enter: 3
```

```
main.py > [②] i

1    n = int(input())
2    for i in range(n):
3     print(n)
```

Step	i	n	sum	output
1		3		
2		3	0	
3	0	3	0	
4	0	3	0	
5	0	3	0	0
6	1	3	0	
7	1	3	1	
8	1	3	1	1
9	2	3	1	
10	2	3	2	
11	2	3	2	2

If user enter: 3

```
main.py > [@] i

1    n = int(input())
2    sum = 0
3    for i in range(n):
4        sum = sum + i
5        print(sum)
```

Step	i	n	sum	output
1		2		
2		2	0	
3		2	0	
4	0	2	0	
5	0	2	0	0
6	1	2	1	
7	1	2	1	1

If user enter: 2

Step	i	j	k	i <j< th=""><th>output</th></j<>	output
1	0				
2	0	2			
3	0	2	3		
4	2	2	3		
5	3	2	3		
6	3	2	3	False	
7	3	2	3		I am here

```
main.py X
e main.py > ...
  1 i = 0
   2 j = 2
   3 k = 3
  4 \quad i = j
   i = k
       while i < j:
          print("Hello, world")
          i = i + 1
       print("I am here")
```

step	i	j	k	i <j< th=""><th>Output</th></j<>	Output
1	0				
2	0	2			
3	0	2	3		
4	0	2	3		
5	0	2	3	True	
6	0	2	3		Hello ,world
7	1	2	3		
8	1	2	3	True	
8	1	2	3	True	Hello, world
				True	Hello, world
9	1	2	3	True False	Hello, world
9	1 2	2	3		Hello, world Hello world Hello world I am here
9 10 11	2 2	2 2 2	3 3		Hello world Hello world

```
🌓 main.py > 🕪 j
  1 \quad i = 0
  2 j = 2
  3 k = 3
  4 \quad j = k - 1
       while i < j:
           print("Hello, world")
          i = i + 1
       print("I am here")
```

step	i	i<5	i>1	output
1	0			
2	0	True		
3	0		False	
4	1	True		
5	1		False	
6	2			
7	2	True		
8	2		True	
9	2			Hello world
10	3			
11	3	True		
12	3		True	
12	3			Hello world
14	4			
15	4	True		
16	4		True	
17	4			Hello world
18	5			
19	5	False		
20	5			Hello, world Hello, world Hello, world I am here

Step	i	i<5	i>0 and i<4	Output
1	0			
2	0	True		
3	0		False	
4	1			
5	1	True		
6	1		False	
7	2			
8	2	True		
9	2		True	
10	2			Hello world
11	3			
12	3	True		
13	3		True	
14	3			Hello world
15	4			
16	4	True		
17	4		False	
18	5			
19	5	False		
20	5			Hello world Hello world I am here

```
main.py > ...

1     i = 0

2     while i < 5:

3          if i > 1 and i < 4:

4                print("Hello, world")

5                 i = i + 1

6                 print("I am here")</pre>
```

Step	i	i<5	i>1 and i<4	i>5	output
1	0				
2	0	True			
3	0		False		
4	1				
5	1	True			
6	1		False		
7	2				
8	2	True			
9	2		True		
10	2				Hello world
11	3				
12	3	True			
13	3		True		
14	3				Hello world
15	4				
16	4	True			
17	4		False		
18	5				
19	5	False			
20	5			False	
21	5				I am not here

```
e main.py > ...
      while i < 5:
           if i > 1 and i < 4:
               print("Hello, world")
           i = i + 1
      if i > 5:
           print("I am here")
       else:
           print("I am not here")
```

Step	i	result	i<5	i>1 and i<4	i==0	i>5	Output
1	0						
2	0	""					
3	0	""	True				
4	0	4639		False			
5	0	4639			True		
6	0	4639					Hello zero
7	1	4639					
8	1	""	True				
9	1	""		False			
10	1	4639			False		
11	2	""					
11	2	""	True				
12	2	""		True			
13	2	""					Hello world
14	2	""			False		
15	3	""					
16	3	""	True				
17	3	""		True			
18	3	""					Hello world
19	3	""			False		
20	4	""					
21	4	""	True				
22	4	""		False			
23	4	""			False		
24	5	""					
25	5	""	False				
26	5	439				False	
27	5	6639					I am here

```
e main.py > ...
      i = 0
      while i < 5:
           if i > 1 and i < 4:
               print("Hello, world")
          if i == 0:
               print("Hello, zero")
          i = i + 1
      if i > 5:
           print("I am here")
      else:
 10
           print("I am not here")
 11
```

Step	i	result	i<5	i>1 and i<4	i==0	output
1	0					
2	0	""				
3	0	""	True			
4	0	""		False		
5	0	""			True	
6	0	Hello zero				
7	1	,				
8	1	4439	True			
9	1	4439		False		
10	1	,			False	
11	2	6659				
12	2	4459	True			
13	2	4459		True		
14	2	Hello world				
15	2	4459			False	
16	3	4479				
17	3	4479	True			
18	3	4479		True		
19	3	4479				
20	3	Hello world			False	
21	4					
22	4		True			
23	4			False		
24	4				False	
25	5		False			
26	5	66 59	False			

```
🟓 main.py > ...
       i = 0
     result = ""
   3 \vee \text{while i} < 5:
          if i > 1 and i < 4:
               result = "Hello, world"
          if i == 0:
  6 🗸
               result = "Hello, zero"
  8
           i = i + 1
  9
       print(result)
```

Step	i	i<5	i>1 and i<4	i==0	Result	
1	0					
2	0				6639	
3	0	True			""	
4	0		False		6639	
5	0			True	6639	
6	0				Hello, zero	
7	1					
8	1	True				
9	1		False			
10	1			False		
11	2					
12	2	True				
13	2		True			
14	2				Hello zero Hello world	
15	2			False		
16	3					
17	3	True				
18	3		True			
19	3				Hello zero Hello world Hello world	
20	3			False		
21	4					
22	4	True				
23	4		False			
24	4			False		
25	5					
26	5	Falso				

Step	а	sum	output
1	10		
2	10	0	
3	10	10	
4	10	10	10

```
main.py > [②] a

1     a = 10

2     sum = 0

3     sum += a # sum += a mean sum = sum + a
4     print(sum)
```

1	0				
2	0	True			
3	0				Hello
4	1				
5	1	False			
6	1		False		
7	1			True	
8	1				OKay
9	2				
10	2	False			
11	2		False		
12	2			True	
13	2				Okay
14	3				
15	3	False			
16	3		False		
17	3			True	
18	3				ОК
19	4				
20	4	False			
10	2		True		

i>=4 and i<=7

i==0

Step

i>=1 and i<=3

output

```
main.py > [②];

for i in range(7):
    if i == 0:
        print("Hello")
    elif i >= 4 and i <=7:
        print("Okay")
    elif i >=1 and i <= 3:
        print("No!")</pre>
```

Step	'	number	10		i<=3	Output
1		0				
2	0	0				
3	0	0	True			
4	0	1				
5	1	1				
6	1	1			True	
7	1	4				
8	2	4				
9	2	4			True	
10	2	7				
11	3	7				
12	3	7			True	
13	3	10				
14	4	10				
15	4	10		True		
16	4	12				
17	5	12		True		
18	5	14				
19	6	14				
20	6	14		True		
21	6	16				
22	6	16				16

Step

number

i==0

i>=4 and i<=7 | i>=1 and

Output

```
main.py > [@]i

number = 0

for i in range(7):

if i == 0:

number += 1

elif i >= 4 and i <=7:

number += 2

elif i >=1 and i <= 3:

number += 3

print(number)</pre>
```