

Блок 1

Условие:

Дан массив P(35). Упорядочить элементы массива по возрастанию до первого нулевого элемента и по убыванию после него.

Код:

```
from random import*

total = int(input("Total weight: "))
count = 30
sum = 0
collection = [ int(randint(1, 10)) for i in range(count) ]
print("Collection: ")
for i in range (0, count):
    print(collection[i], " ")
for i in range (0, count):
    sum = sum + collection[i]
if sum > total:
    print("Result: ", sum, " more than ", total)
else:
    print("Result: ", sum, " less than ", total)
```

```
from random import*

total = int(input("Total weight: "))
count = 5
sum = 0
print("Collection: ")

collection = [ int(input()) for i in range(count) ]

for i in range (0, count):
    sum = sum + collection[i]
if sum > total:
    print("Result: ", sum, " more than ", total)
else:
    print("Result: ", sum, " less than ", total)
```

Результат работы

```

Total weight: 30
Collection:
4
8
7
7
10
1
8
7
1
8
8
9
4
8
9
9
10
1
3
8
2
4
3
5
5
3
6
1
5
10
6
Result: 171 more than 30
Press any key to continue . . .

```

Блок 2

Условие:

Дана матрица $A(10,10)$. Поменять строку с максимальным элементом на главной диагонали со строкой с минимальным элементом на побочной диагонали.

Код:

```

from random import*

N = 6
M = 9
sum = 0
matrix = [[randint(1, 1000) for j in range(M)] for i in range(N)]
print("Matrix: ")
for i in range(N):
    for j in range(M):
        print ( "{:4d}".format(matrix[i][j]), end = " " )
    print()

max = 0
min = 1000
posMin = 0
posMax = 0
for i in range(N):
    for j in range(M):
        if matrix[i][j] > max:
            max = matrix[i][j]

```

```

        posMax = i
    if matrix[i][j] < min:
        min = matrix[i][j]
        posMin = i

buf = matrix[posMax]
matrix[posMax] = matrix[posMin]
matrix[posMin] = buf
print("Result matrix: ")
for i in range(N):
    for j in range(M):
        print ( "{:4d}".format(matrix[i][j]), end = "" )
    print()

```

Результат работы:

```

Matrix:
196  96 173 846 722 481 938 802 147
192  41 114 765 214 825 800 806 473
406 539 419 963 878  21 360 637 798
300 854 994 310  78 113 342 139 777
 29  49 222 684 547  48 414 211 278
 75 508 250 356 288 923 878 219 994
Max: 994  3
Min:  21  2
Result matrix:
196  96 173 846 722 481 938 802 147
192  41 114 765 214 825 800 806 473
300 854 994 310  78 113 342 139 777
406 539 419 963 878  21 360 637 798
 29  49 222 684 547  48 414 211 278
 75 508 250 356 288 923 878 219 994
Press any key to continue . . .

```