

Зертханалық жұмыс - №1

Сызықтық программалар. Тармақталу. Циклдер.

Жұмыстың мақсаты: Python программалау тілімен тәжірибеде танысу

In []:

In []:

```
print("Salem!")
```

Salem!

print(value1, value2, value3)

In []:

```
print("Hello", "Salem", 12, 6+5, 5.6)
```

Hello Salem 12 11 5.6

print(value1, end='\n')

In []:

```
print("Salem")
print("Hello")
print("Welcome")
```

Salem

Hello

Welcome

In []:

```
print("Salem", "Hello", "Welcome", end = " ")
```

Salem Hello Welcome

In []:

```
print("Salem", end = " ")
print("Hello", end = "--")
print("Welcome", end= "!")
```

Salem Hello--Welcome!

print(value1, value2, value3, sep=" ")

In []:

```
print("Salem", "Hello", "Welcome", sep = "---")
```

Salem---Hello---Welcome

strobject.format(value1, value2)

In []:

```
print("{0:.3f}".format( 3.1415926))
```

3.142

In []:

```
print(f'{0}', 3.1415)
```

0 3.1415

```
In [ ]: import math
```

```
math.pow(2,3) math.sqrt(2) math.fabs(12) math.sin(0.12)  
// %
```

```
In [ ]: 7/5
```

```
Out[ ]: 1.4
```

```
In [ ]: 7 // 5
```

```
Out[ ]: 1
```

```
In [ ]: 7 % 5
```

```
Out[ ]: 2
```

```
In [ ]: import math  
math.ceil(2.3)
```

```
Out[ ]: 3
```

```
In [ ]: math.ceil(2.8)
```

```
Out[ ]: 3
```

```
In [ ]: math.floor(2.3)
```

```
Out[ ]: 2
```

```
In [ ]: math.floor(2.8)
```

```
Out[ ]: 2
```

```
In [ ]: a = input("Enter a number ")
```

```
In [ ]: a
```

```
Out[ ]: '12'
```

```
In [ ]: type(a)
```

```
Out[ ]: str
```

```
In [ ]: a = int(a)
```

In []: a

Out[]: 12

In []: type(a)

Out[]: int

In []: a = int(input())
b = float(input())

In []: a

Out[]: 12

In []: b

Out[]: 12.0

In []: type(a)

Out[]: int

In []: type(b)

Out[]: float

if condition: operators elif condition: operators elif: operators else: operators

In []: for i in range(11):
print(i, end = ' ')

0 1 2 3 4 5 6 7 8 9 10

In []: i = 0
while i < 10:
 if i == 5:
 print("Операторлар")
 i += 1

Операторлар

In []: for i in range(1, 11):
 if i == 5:
 print("Операторлар")

Операторлар

In []: i = 1
sum = 0
while i <= 3:
 a = int(input("Бүтін санды енгіз: "))
 sum += a

```
    i += 1
    print("sum = ", sum)
```

sum = 6

```
In [ ]: for i in range(4):
        for j in range(3):
            print(8, end = " ")
        print()
```

8 8 8
8 8 8
8 8 8
8 8 8

```
In [ ]: for i in range(1,8):
        for j in range(5):
            print(i, end = " ")
        print()
```

1 1 1 1 1
2 2 2 2 2
3 3 3 3 3
4 4 4 4 4
5 5 5 5 5
6 6 6 6 6
7 7 7 7 7

```
In [ ]: import random
```

```
In [ ]: random.random()
```

Out[]: 0.30219541650300696

```
In [ ]: random.randint(2, 5)
```

Out[]: 4

```
In [ ]: random.randrange(2, 5)
```

Out[]: 3

```
In [ ]: random.choice([2,4,5,10])
```

Out[]: 5

```
In [ ]: for i in range(8):
        print(random.random())
```

0.4545435827056372
0.3080928610888236
0.5131073339952515
0.9518986313707071
0.8570550058905569
0.22554213637169163

0.8574868269728579
0.481167224675072

In []: `int(random.random()*10)+1`

Out[]: 3

In []: `int(random.random()*10)+1`

Out[]: 5

Тапсырма:

Дмитрий Злотополюский 1400 задач по программированию кітабынан [1..10] бөлімдерінен 2 есептен шығарыңыздар. Әр бөлімнен кез-келген 2 есепті таңдайсыздар.