

PYTHON DASTURLASH TILIDA SHART OPERATORIGA DOIR MASALALAR

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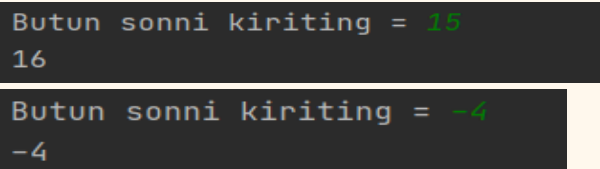
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Annotatsiya: Ushbu maqolada shart operatoriga oid bir nechta masalalarning pythonda dasturi tuzildi va natijasi olindi. Masalada keltirilgan har bir shart bo'yicha olingan natija ko'rsatildi.

Kalit so'zlar: if, butun son, haqiqiy son, elif, else, int, float, print.

1-misol. Butun son berilgan. Agar, berilgan son musbat bo'lsa, 1 ga oshirilsin, aks holda o'zgartirilmasin. Hosil bo'lgan sonni ekranga chiqaruvchi programma tuzilsin.

```
Dasturi: a = int(input("Butun sonni kiriting = "))
if (a>0):
    b = a+1
    print(b)
else:
    print(a)
```



```
Butun sonni kiriting = 15
16

Butun sonni kiriting = -4
-4
```

2-misol. Butun son berilgan. Agar, berilgan son musbat bo'lsa, 1 ga oshirilsin, manfiy bo'lsa, 2 ga kamaytiring, agar 0 ga teng bo'lsa, 10 ni o'zlashtirsin. Hosil bo'lgan sonni ekranga chiqaruvchi programma tuzilsin.

```
Dasturi:
a = int(input("Butun sonni kiriting = "))
if (a>0):
    b = a+1
    print(b)
elif (a<0):
    c = a-2
    print(c)
elif (a==0):
```



```
print("a=10")
```

```
Butun sonni kiriting = 13
14
```

```
Butun sonni kiriting = 0
a=10
```

```
Butun sonni kiriting = -24
-26
```

3-misol. Uchta butun son berilgan. Shu sonlar orasidan nechta musbat son borligini aniqlovchi programma tuzilsin.

Dasturi:

```
a = int(input(" a butun sonni kiriting = "))
```

```
b = int(input(" b butun sonni kiriting = "))
```

```
c = int(input(" c butun sonni kiriting = "))
```

```
if ((a>0 and b<0 and c<0) or (b>0 and a<0 and c<0) or (c>0 and a<0 and
b<0)): print(" 1 ta musbat son bor")
```

```
elif ((a>0 and b>0 and c<0) or (a>0 and c>0 and b<0) or (b>0 and c>0 and
a<0)): print("2 ta musbat son bor")
```

```
elif (a>0 and b>0 and c>0):
```

```
print("3 ta musbat son bor")
```

```
else:
```

```
print("Musbat son yo'q")
```

```
a butun sonni kiriting = -7
b butun sonni kiriting = 5
c butun sonni kiriting = -15
1 ta musbat son bor
```

```
a butun sonni kiriting = 5
b butun sonni kiriting = 6
c butun sonni kiriting = -7
2 ta musbat son bor
```

```
a butun sonni kiriting = 9
b butun sonni kiriting = 51
c butun sonni kiriting = 74
3 ta musbat son bor
```

```
a butun sonni kiriting = -17
b butun sonni kiriting = -2
c butun sonni kiriting = -19
Musbat son yo'q
```

4-misol. Ikkita butun son berilgan. Shu sonlarning kattasini aniqlovchi dastur tuzilsin.

Dasturi:

```
a = int(input(" a butun sonni kiriting = "))
```

```
b = int(input(" b butun sonni kiriting = "))
```

```
if a>b:
```

```
print("(a>b), a = ", a)
```

```
elif b>a:
```



```
print("(b>a), b = ", b)
else:
print("Ular teng")
```

```
a butun sonni kiriting = 6
b butun sonni kiriting = 1
(a>b), a = 6
```

```
a butun sonni kiriting = 5
b butun sonni kiriting = 13
(b>a), b = 13
```

5-misol. a va b butun sonlari berilgan. Agar o'zgaruvchilar o'zaro teng bo'lmasa, a va b o'zgaruvchilar 1 taga oshsin, agar teng bo'lsa, 0 ni o'zlashtirsin. a va b ning qiymati ekranga chiqarilsin.

Dasturi:

```
a = int(input(" a butun sonni kiriting = "))
b = int(input(" b butun sonni kiriting = "))
if a!=b:
a = a+1
b = b+1
print(f" a = {a}, b = {b}")
elif a==b:
print(f" a = 0, b = 0")
```

```
a butun sonni kiriting = 5
b butun sonni kiriting = 12
a = 6, b = 13
```

```
a butun sonni kiriting = 21
b butun sonni kiriting = 21
a = 0, b = 0
```

6-misol. Uchta son berilgan. Shu sonlarni kichigini aniqlovchi programma tuzilsin.

Dasturi:

```
a = int(input(" a sonni kiriting = "))
b = int(input(" b sonni kiriting = "))
c = int(input(" c sonni kiriting = "))
if (a>b and b>c) or (b>a and a>c):
print("Eng kichik son = ",c)
elif (a>c and c>b) or (c>a and a>b):
print("Eng kichik son = ",b)
elif (b>c and c>a) or (c>b and b>a):
print("Eng kichik son = ", a)
```




```
a sonni kiriting = 5
b sonni kiriting = 7
c sonni kiriting = 1
Eng kichik son = 1
```

```
a sonni kiriting = 4
b sonni kiriting = 2
c sonni kiriting = 8
Eng kichik son = 2
```

```
a sonni kiriting = 5
b sonni kiriting = 8
c sonni kiriting = 26
Eng kichik son = 5
```

7-misol. a, b, c haqiqiy sonlari berilgan. Agar berilgan sonlar o'sish tartibida joylashgan bo'lsa, sonlarni ikkilantiring, aks holda sonlarning ishorasi almashtirilsin. a, b, c ning qiymati ekranga chiqarilsin.

Dasturi:

```
a = float(input(" a haqiqiy sonni kiriting = "))
b = float(input(" b haqiqiy sonni kiriting = "))
c = float(input(" c haqiqiy sonni kiriting = "))
if a<b and b<c:
    print(f"a={2*a}, b={2*b}, c={2*c}")
else:
    print(f"a={-a}, b={-b}, c={-c}")
```

```
a haqiqiy sonni kiriting = 0.2
b haqiqiy sonni kiriting = 2.14
c haqiqiy sonni kiriting = 5.16
a=0.4, b=4.28, c=10.32
```

```
a haqiqiy sonni kiriting = -2.01
b haqiqiy sonni kiriting = 2.153
c haqiqiy sonni kiriting = 0.458
a=2.01, b=-2.153, c=-0.458
```

8-misol. x haqiqiy soni berilgan. Quyidagi funksiya aniqlansin.

$$f(x) = \begin{cases} 2 \cdot x, & \text{agar } x < -2 \text{ yoki } x > 2; \\ -3 \cdot x & \text{aks holda;} \end{cases}$$

Dasturi:

```
x = float(input(" x haqiqiy sonni kiriting = "))
if x<-2 or x>2:
    print(2*x)
else:
    print(-3*x)
```

```
x haqiqiy sonni kiriting = -4.15
-8.3
```



```
x haqiqiy sonni kiriting = 1.147
-3.441
```

9-misol. x haqiqiy soni berilgan. Quyidagi funksiya aniqlansin. $f(x) =$

$$\begin{cases} -x, & \text{agar } x \leq 0; \\ x^2, & \text{agar } 0 < x < 2; \\ 4, & \text{agar } x \geq 2; \end{cases}$$

Dasturi:

```
x = float(input(" x haqiqiy sonni kiriting = "))
if x<=0:
    print(-x)
elif x>0 and x<2:
    print(x**2)
elif x>=2:
    print(4)
```

```
x haqiqiy sonni kiriting = -0.54
0.54
```

```
x haqiqiy sonni kiriting = 1.2
1.44
```

```
x haqiqiy sonni kiriting = 4.28
4
```

Xulosa qiladigan bo‘lsam, python dasturlash tilini o‘rganish oson va qulay. Shuning uchun pythonda shart operatoriga doir masalalarning tahlili ushbu maqolada keltirib o‘tildi. Bu esa mustaqil o‘rganuvchilar, talabalar uchun tushunarlidir. Maqolada keltirib o‘tilganlar barchamizning bilim – zakovatimizni oshirishga xizmat qiladi, deb ishonaman.

Foydalanilgan adabiyotlar:

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