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ASTRONOMIYADAN BA'ZI MASALALAR VA ULARNING YECHIM USULLARI PYTHON DASTURIDA KODLAR ORQALI TUSHUNTIRISH

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```
import math
Q = 0
q = 0
a = 0
T = 0
V = 0
aq = 0
aQ = 0
soz = ""
jav = ""
sozi = ""

print("*****")
print("* Astronomiyadan masalalar yechadigan dasturga xush kelibsiz! *")
print("*****\n")
```

while True:

```
print("Qaysi parametrni topmoqchisiz.....")
print("1.a-Sayyora orbitasining katta yarim o'qi")
print("2.V-Sayyoraning o'rtacha orbital tezligi")
print("3.Perigeliy va afeliy masofalari")
```

```
soz = input()
if soz == "a" or soz == "1":
```

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```
print("Sizga aynan qaysi parametr kerak.....")
print("1.a-Sayyora orbitasining katta yarim o'qi")
print("2.Q-Sayyoraning afeliy masofasi")
print("3.q-Sayyoraning perigeliy masofasi")
sozi = input()
if sozi == "a" or sozi == "1":
    print("afeliy masofasini kriting.....")
    Q = float(input())
    print("perigeliy masofasini kriting.....")
    q = float(input())
    print("Sayyora orbitasining katta yarim o'qi= ", (q + Q) / 2)
for i in range(10):
    print("*", end="")
elif sozi == "Q" or sozi == "2":
    print("Sayyora orbitasining katta yarim o'qini kriting.....")
    a = float(input())
    print("perigeliy masofasini kriting.....")
    q = float(input())
    print("Sayyoraning afeliy masofasi= ", 2 * a - q)
for i in range(10):
    print("*", end="")
elif sozi == "q" or sozi == "3":
    print("Sayyora orbitasining katta yarim o'qini kriting.....")
    a = float(input())
    print("Sayyoraning afeliy masofasini kriting.....")
    Q = float(input())
    print("Sayyoraning perigeliy masofasi= ", 2 * a - Q)
for i in range(10):
```

Rasm-2:

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```
KORCIDVKTOB
C:\WINDOWS\py.exe
*****
*      Astronomiyadan masalalar yechadigan dasturga xush kelibsiz!      *
*****
Qaysi parametrni topmoqchisiz.....
1.a-Sayyora orbitasining katta yarim o'qi
2.V-Sayyoraning o'rtacha orbital tezligi
3.Perigeliy va afeliy masofalari
1
Sizga aynan qaysi parametr kerak.....
1.a-Sayyora orbitasining katta yarim o'qi
2.Q-Sayyoraning afeliy masofasi
3.q-Sayyoraning perigeliy masofasi
1
afeliy masofasini kiriting.....
12
perigeliy masofasini kiriting.....
20
Sayyora orbitasining katta yarim o'qi= 16.0
*
*
*
*
*
*
*
*
*
Oaysi parametrni topmoqchisiz.....
```

```
print("*", end="")
elif soz == "V" or soz == "2":
    print("Sizga aynan qaysi parametr kerak....")
    print("1.V-Sayyoraning orbital tezligi")
    print("2.a-Sayyoraning orbita radiusi")
    print("3.T-Sayyoraning quyosh atrofida aylanish davri")
    sozi = input()
if sozi == "V" or sozi == "1":
    print("Sayyoraning orbita radiusini kriting....")
    a = float(input())
    print("Sayyoraning quyosh atrofida aylanish davrini kriting....")
    T = float(input())
    print("Sayyoraning orbital tezligi= ", ((2 * math.pi * a) / T))
for i in range(10):
    print("*", end="")
Rasm-3:
```

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```
C:\WINDOWS\py.exe
Qaysi parametrni topmoqchisiz.....
1.a-Sayyora orbitasining katta yarim o'qi
2.V-Sayyoraning o'rtacha orbital tezligi
3.Perigeliy va afeliy masofalari
2
Sizga aynan qaysi parametr kerak.....
1.V-Sayyoraning orbital tezligi
2.a-Sayyoraning orbita radiusi
3.T-Sayyoraning quyosh atrofida aylanish davri
1
Sayyoraning orbita radiusini kiriting.....
270
Sayyoraning quyosh atrofida aylanish davrini kiriting.....
365
Sayyoraning orbital tezligi= 4.64783570668079
*
*
*
*
*
*
*
*
*
*
*
*
Qaysi parametrni topmoqchisiz.....
1.a-Sayyora orbitasining katta yarim o'qi
2.V-Sayyoraning o'rtacha orbital tezligi
3.Perigeliy va afeliy masofalari
```

```
elif sozi == "a" or sozi == "2":
    print("Sayyoraning orbital tezligini kiriting.....")
    V = float(input())
    print("Sayyoraning quyosh atrofida aylanish davrini kiriting.....")
    T = float(input())
    print("Sayyoraning orbita radiusi a= ", (V * T) / (2 * math.pi))
    for i in range(10):
        print("*", end="")
elif sozi == "T" or sozi == "3":
    print("Sayyoraning orbital tezligini kiriting.....")
    V = float(input())
    print("Sayyoraning orbita radiusini kiriting.....")
    a = float(input())
    print("Sayyoraning quyosh atrofida aylanish davrini kiriting T= ", (2 * math.pi *
a) / V)
    for i in range(10):
        print("*", end="")
elif soz == "Perigeliy va afeliy masofalari" or soz == "3":
    print("Sizga aynan qaysi parametr kerak.....")
    print("1.q-Sayyoraning perigeliy masofasi")
```

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```
print("2.Q-Sayyoraning afeliy masofasi")
print("3.aq-Sayyora orbitasining katta yarim o'qini perigeliy masofasi orqali
topish")
print("4.aQ-Sayyora orbitasining katta yarim o'qini afeliy masofasi orqali
topish")
sozi = input()
if sozi == "q" or sozi == "1":
    print("Sayyoraning orbita radiusini kiriting.....")
    a = float(input())
    print("Sayyoraning quyosh atrofida aylanish ekssentrisitetini kiriting.....")
    e = float(input())
    print("Sayyoraning perigeliy masofasi q= ", a * (1 - e))
    for i in range(10):
        print("*", end="")
elif sozi == "Q" or sozi == "2":
    print("Sayyoraning orbita radiusini kiriting.....")
    a = float(input())
    print("Sayyoraning quyosh atrofida aylanish ekssentrisitetini kiriting.....")
    e = float(input())
    print("Sayyoraning afeliy masofasi Q= ", a * (1 + e))
    for i in range(10):
        print("*", end="")
```