## 1-misol

**Savol:** Ikki sonni qo‘shadigan funksiya tuzing.  
**Javob (kod):**

def **add**(a, b):

    return a + b

**print**(**add**(3, 7))   *# 10*

**Natija:**

10

## 2-misol

**Savol:** Berilgan sonning kvadratini hisoblaydigan funksiya tuzing.  
**Javob (kod):**

def **kvadrat**(x):

    return x \* x

**print**(**kvadrat**(5))   *# 25*

**Natija:**

25

## 3-misol

**Savol:** Ikki sonni ko‘paytiradigan funksiya tuzing.  
**Javob (kod):**

def **multiply**(a, b):

    return a \* b

**print**(**multiply**(10, 6))   *# 60*

**Natija:**

60

## 4-misol

**Savol:** Ism va tug‘ilgan yil berilsa, yoshni hisoblaydigan funksiya tuzing.  
**Javob (kod):**

def **yosh\_hisobla**(name, birth\_year):

    yosh = 2025 - birth\_year

    return f"{name} yoshi: {yosh}"

**print**(**yosh\_hisobla**("Ali", 2000))   *# Ali yoshi: 25*

**Natija:**

Ali yoshi: 25

## 5-misol

**Savol:** Ikki sonni bo‘ladigan funksiya tuzing.  
**Javob (kod):**

def **divide**(a, b):

    return a / b

**print**(**divide**(20, 4))   *# 5.0*

**Natija:**

5.0

## 6-misol

**Savol:** Uchta son yig‘indisini hisoblaydigan funksiya tuzing.  
**Javob (kod):**

def **sum\_three**(a, b, c):

    return a + b + c

**print**(**sum\_three**(7, 8, 9))   *# 24*

**Natija:**

24

## 7-misol

**Savol:** Bir sonni n marta qo‘shib natija qaytaradigan funksiya tuzing.  
**Javob (kod):**

def **repeat\_sum**(x, n):

    return x \* n

**print**(**repeat\_sum**(3, 5))   *# 15*

**Natija:**

15

## 8-misol

**Savol:** Parallelogramm yuzasini hisoblaydigan funksiya tuzing (asos × balandlik).  
**Javob (kod):**

def **parallelogram\_area**(a, h):

    return a \* h

**print**(**parallelogram\_area**(8, 6))   *# 48*

**Natija:**

48

## 9-misol

**Savol:** Berilgan sonning faktorialini hisoblaydigan funksiya tuzing.  
**Javob (kod):**

def **factorial**(n):

    result = 1

    for i in **range**(1, n+1):

        result \*= i

    return result

**print**(**factorial**(4))   *# 24*

**Natija:**

24

## 10-misol

**Savol:** 1 dan n gacha bo‘lgan sonlar yig‘indisini hisoblaydigan funksiya tuzing.  
**Javob (kod):**

def **summa**(n):

    total = 0

    for i in **range**(1, n+1):

        total += i

    return total

**print**(**summa**(5))   *# 15*

**Natija:**

15

## 11-misol

**Savol:** Konsolga "Hello" chiqaradigan funksiya tuzing va uni bir necha marta chaqiring.  
**Javob (kod):**

def **say\_hello**():

**print**("Hello")

**say\_hello**()

**say\_hello**()

**say\_hello**()

**Natija:**

Hello  
Hello  
Hello

## 12-misol

**Savol:** Konsolga "Hello" va "Good Bye" chiqaradigan ikkita funksiya tuzing.  
**Javob (kod):**

def **say\_hello**():

**print**("Hello")

def **say\_goodbye**():

**print**("Good Bye")

**say\_hello**()

**say\_goodbye**()

**Natija:**

Hello  
Good Bye

## 13-misol

**Savol:** Funksiya ichida boshqa funksiya yozib, ichki funksiyani chaqiring.  
**Javob (kod):**

def **print\_messages**():

    def **hello**(): **print**("Hello")

    def **bye**(): **print**("Good Bye")

**hello**()

**bye**()

**print\_messages**()

**Natija:**

Hello  
Good Bye

## 14-misol

**Savol:** main() funksiyasi ichida boshqa funksiyalarni chaqiradigan dastur tuzing.  
**Javob (kod):**

def **say\_hello**():

**print**("Hello")

def **say\_goodbye**():

**print**("Good Bye")

def **main**():

**say\_hello**()

**say\_goodbye**()

**main**()

**Natija:**

Hello  
Good Bye

## 15-misol

**Savol:** Parametr kiritilmasa “Do‘st”, kiritilsa ismni chiqaradigan funksiya tuzing.  
**Javob (kod):**

def **greet**(name="Do‘st"):

**print**("Salom,", name)

**greet**()

**greet**("Aziza")

**Natija:**

Salom, Do‘st  
Salom, Aziza

**📝 Amaliy mashqlar: Parametrli va parametrsiz funksiyalar**

Quyidagi mashqlar orqali Python’da funksiyalarni chuqurroq mustahkamlash mumkin. Mashqlar **bosqichma-bosqich** qiyinlashib boradi.

**🔹 1-daraja (oddiy)**

**1. Salomlashuv funksiyasi**

Parametrsiz funksiya yozing, u konsolga "Assalomu alaykum!" deb chiqarishi kerak.

**2. Kvadrat topuvchi funksiya**

Parametrli funksiya yozing, u berilgan sonning kvadratini hisoblab chiqarib bersin.

kvadrat(5) → 25

**3. Ikki sonni qo‘shish**

Parametrli funksiya yozing, u ikkita son qabul qilib, yig‘indisini chiqarib bersin.

**🔹 2-daraja (o‘rtacha)**

**4. Foydalanuvchiga murojaat**

greet(name, age) funksiyasini yozing. U foydalanuvchi ismi va yoshini qabul qilib:

Salom, Dilnoza! Sizning yoshingiz 20 da.

deb chiqarsin.

**5. Juft yoki toq**

check\_number(n) funksiyasini yozing. U sonni qabul qilib, "Juft" yoki "Toq" deb chiqarib bersin.

**6. Ko‘paytirish jadvali**

multiplication\_table(n) funksiyasini yozing. U berilgan sonning ko‘paytirish jadvalini 1 dan 10 gacha chiqarib bersin.

**🔹 3-daraja (qiyinroq)**

**7. Eng katta son**

find\_max(a, b, c) funksiyasini yozing. U uchta son qabul qilib, eng kattasini chiqarib bersin.

**8. Foydalanuvchi ismlarini chiqarish**

print\_users(\*names) funksiyasini yozing. U istalgancha ism qabul qilib, ularni tartib raqami bilan chiqarib bersin:

1. Ali

2. Laylo

3. Anvar

**9. Fibonacci ketma-ketligi**

fibonacci(n) funksiyasini yozing. U n ta Fibonacci sonini ro‘yxat ko‘rinishida qaytarsin.

fibonacci(6) → [0, 1, 1, 2, 3, 5]

**🔹 4-daraja (murakkabroq)**

**10. Matnni teskari yozish**

reverse\_text(text) funksiyasini yozing. U berilgan matnni teskari qilib qaytarsin.

reverse\_text("python") → "nohtyp"

**11. So‘z sanagich**

count\_words(text) funksiyasini yozing. U matndagi so‘zlar sonini aniqlasin.

count\_words("Bugun havo juda yaxshi") → 4

**12. Parol tekshiruvchi**

check\_password(password) funksiyasini yozing. Parol kuchli bo‘lishi uchun shartlar:

* Uzunligi kamida 8 ta belgi
* Ichida kamida 1 ta katta harf
* Ichida kamida 1 ta raqam
* Ichida kamida 1 ta maxsus belgi (!@#$%^&\*)  
  Funksiya parol kuchli yoki kuchsizligini chiqarib bersin.

**🔹 5-daraja (murakkab)**

**13. Palindrom so‘z**

is\_palindrome(word) funksiyasini yozing. U so‘z palindrom (chapdan o‘qiganda ham, o‘ngdan o‘qiganda ham bir xil) bo‘lsa True, aks holda False qaytarsin.

is\_palindrome("level") → True

is\_palindrome("python") → False

**14. Fayl kengaytmasini aniqlash**

get\_extension(filename) funksiyasini yozing. U berilgan fayl nomidan uning kengaytmasini topib qaytarsin.

get\_extension("photo.jpg") → "jpg"

get\_extension("document.pdf") → "pdf"

**15. Sonlar statistikasi**

statistics(numbers) funksiyasini yozing. U ro‘yxatdagi sonlarning:

* eng kattasi
* eng kichigi
* o‘rtachasi

ni qaytarsin.

statistics([10, 20, 30, 40]) → (40, 10, 25.0)

Ah, tushundim! Siz xohlaysizki, savollar **aniq va konkret parametrga ega bo‘lsin**, “bir majburiy parametr” kabi umumiy ifodalar emas. Ya’ni savol shunday bo‘lishi kerak:

“name majburiy parametrli funksiya tuzing va konsolga Salom, <name> chiqaring”

Shu uslubda **Python’da majburiy va majburiy bo‘lmagan parametrlar** bo‘yicha **10 ta konkret savol** tayyorladim:

### 1-savol

**Savol:** name majburiy parametrli funksiya tuzing va konsolga Salom, <name> chiqaring.

def greet(name):

print("Salom,", name)

greet("Ali")

### 2-savol

**Savol:** name majburiy bo‘lmagan parametrli funksiya tuzing (default=Mehmon) va konsolga Salom, <name> chiqaring.

def greet(name="Mehmon"):

print("Salom,", name)

greet()

greet("Dilnoza")

### 3-savol

**Savol:** name majburiy, age majburiy bo‘lmagan parametrli funksiya tuzing. Konsolga Ism: <name>, Yosh: <age> chiqsin (default age=18).

def introduce(name, age=18):

print(f"Ism: {name}, Yosh: {age}")

introduce("Ali", 25)

introduce("Laylo")

### 4-savol

**Savol:** drink va snack majburiy bo‘lmagan parametrli funksiya tuzing (default: drink="Choy", snack="Somsa"). Konsolga tanlovni chiqaring.

def order(drink="Choy", snack="Somsa"):

print(f"Ichimlik: {drink}, Tamaddi: {snack}")

order()

order("Kofe")

order("Sharbat", "Pitsa")

### 5-savol

**Savol:** name majburiy, subject majburiy bo‘lmagan parametrli funksiya tuzing (default=Matematika). Konsolga <name> fani: <subject> chiqsin.

def student(name, subject="Matematika"):

print(f"{name} fani: {subject}")

student("Javohir")

student("Madina", "Fizika")

### 6-savol

**Savol:** name majburiy, group va scholarship majburiy bo‘lmagan parametrli funksiya tuzing (default: group="No group", scholarship=False). Konsolga talaba ma’lumotini chiqaring.

def student\_info(name, group="No group", scholarship=False):

print(f"Ism: {name}, Guruh: {group}, Stipendiya: {'Ha' if scholarship else 'Yo‘q'}")

student\_info("Ali", "CS-101", True)

student\_info("Dilnoza")

### 7-savol

**Savol:** number majburiy, degree majburiy bo‘lmagan parametrli funksiya tuzing (default degree=2). Natijani qaytaring (number \*\* degree).

def power(number, degree=2):

return number \*\* degree

print(power(5))

print(power(3, 4))

### 8-savol

**Savol:** name majburiy, city majburiy bo‘lmagan parametrli funksiya tuzing (default=Toshkent). Konsolga <name>, Shahar: <city> chiqsin.

def person(name, city="Toshkent"):

print(f"Ism: {name}, Shahar: {city}")

person("Ali")

person("Zarina", "Samarqand")

### 9-savol

**Savol:** name va age majburiy, course majburiy bo‘lmagan parametrli funksiya tuzing (default=No course). Konsolga <name>, Yosh: <age>, Kurs: <course> chiqsin.

def student\_course(name, age, course="No course"):

print(f"Ism: {name}, Yosh: {age}, Kurs: {course}")

student\_course("Ali", 20, "CS-101")

student\_course("Dilnoza", 19)

### 10-savol

**Savol:** name va score majburiy, bonus majburiy bo‘lmagan parametrli funksiya tuzing (default=0). Konsolga <name>ning yakuniy bali: <score+bonus> chiqsin.

def exam\_score(name, score, bonus=0):

print(f"{name}ning yakuniy bali: {score + bonus}")

exam\_score("Ali", 85)

exam\_score("Madina", 90, 10)