

Positional Arguments

1. Write a function `add(a, b)` that returns the sum of two numbers.

```
In [1]: def add(a,b):  
    c=a+b  
    print(c)  
  
add(10,20)
```

30

2. Write a function `area_rectangle(length, width)` that returns the area of a rectangle.

```
In [2]: # Area of rectangle (Length x width)  
def rect(l,b):  
    c=l*b  
    print(c)  
  
rect(10,17)
```

170

3. Write a function `full_name(first, last)` that prints a full name.

```
In [3]: def full_name(first,last):  
    name = first+last  
    print(name)  
  
full_name('Hirakari','Akshitha')
```

HirakariAkshitha

4. Write a function `power(base, exponent)` that returns base exponent

```
In [4]: def power(base,exponent):
    c = base**exponent
    print(c)

power(5,2)
```

25

5. Write a function triangle_perimeter(a, b, c) that returns the perimeter of a triangle.

```
In [5]: def triangle_peri(a,b,c):
    p = a+b+c
    print(p)

triangle_peri(2,4,5)
```

11

6. Write a function convert_hours(hours, minutes) that converts hours and minutes into total minutes.

```
In [7]: def convert_hours(hours,minutes):
    min = hours * minutes
    print(min)

convert_hours(2,60)
```

120

7. Write a function bmi(weight, height) to calculate Body Mass Index.

```
In [11]: def bmi(weight,height):
    mass = weight / (height **2)
    print(mass)

bmi(55,1.65)
```

20.2020202020204

8. Write a function `simple_interest(p, r, t)` to calculate simple interest.

```
In [12]: def simple_interest(p,t,r):
    interest = (p*t*r)/100
    print(interest)

    simple_interest(1000,3,5)
```

150.0

9. Write a function `circle_parameters(radius)` to return diameter, circumference, and area.

```
In [14]: def circle_perimeter(radius):
    rad = 2* 3.1415 * radius
    print(rad)
    circle_perimeter(7)
```

43.981

10. Write a function `compare(a, b)` that prints the larger of the two numbers.

```
In [15]: def compare(a,b):
    if a>b:
        print(a,'is greater')
    else:
        print(b,'is smaller')

    compare(100,6)
```

100 is greater

Keyword Arguments

11. Write a function `student(name, age)` and call it using keyword arguments only.

```
In [3]: def student(name,age):
    print(name)
```

```
    print(age)

student(age=23 , name='nit')

nit
23
```

12. Write a function greet(name, message) that prints a message using keyword arguments.

```
In [4]: def greet(name,message):
    print(name)
    print(message)

greet(message='hello boss',name = 'mayank')

mayank
hello boss
```

13. Write a function car_details(brand, model, price) and call it using keyword arguments in random order.

```
In [5]: def car_details(brand,model,price):
    return brand,model,price

car_details(brand='tata',model='premium',price=23000)

Out[5]: ('tata', 'premium', 23000)
```

14. Write a function divide(numerator, denominator) and call it using keyword arguments.

```
In [6]: def divide(numerator,denominator):
    print(numerator)
    print(denominator)

divide(numerator=20,denominator=2)
```

```
20
2
```

15.Write a function book(title, author, year) and print its details using keyword arguments.

```
In [7]: def book(title,author,year):
    print(title,'book title')
    print(author,'author of book')
    print(year,'publish year')

book(title='atomic habits',author='james clear',year=2018)
```

```
atomic habits book title
james clear author of book
2018 publish year
```

16.Write a function exam_marks(maths, science, english) that calculates average marks using keyword arguments.

```
In [9]: def exam_marks(math,science,english):
    average=(math+science+english)/3
    print(average)

exam_marks(math=76,science=89,english=97)
```

```
87.33333333333333
```

17.Write a function travel(source, destination, distance) and call it using keyword arguments.

```
In [10]: def travel(source,destination,distance):
    print(f"Journey Details:")
    print(f"Source      : {source}")
    print(f"Destination : {destination}")
    print(f"Distance    : {distance} km")

travel(source='hyderabad',destination='banglore',distance=500)
```

Journey Details:
Source : hyderabad
Destination : banglore
Distance : 500 km

18. Write a function employee(id, name, salary) that prints employee information using keyword arguments.

```
In [11]: def employee(id,name,salary):
    print("Employee Details:")
    print(f"id      : {id}")
    print(f"name   : {name}")
    print(f"salary  : {salary} k")
employee(id=234,name='Akshitha',salary=70)
```

```
Employee Details:
id      : 234
name   : Akshitha
salary  : 70 k
```

19. Write a function food(item, quantity, price) and calculate the bill using keyword arguments.

```
In [13]: def food(item,quantity,price):
    print('total bill')
    print(quantity*price)
    print(item)

food(item='sugar',quantity=2,price=100)
```

```
total bill
200
sugar
```

20. Write a function volume_box(length, width, height) using keyword arguments to calculate volume.

```
In [17]: def volume_box(length,width,height):
    print('length of box',length)
```

```
print('width of box',width)
print('height of box',height)

volume_box(lenght=100,width=50,height=150)
```

```
length of box 100
width of box 50
height of box 150
```

Default Arguments

21. Write a function greet(name, msg="Good Morning").

```
In [25]: def greet(name,msg='Good Morning'):
    print(name)
    print(msg)

greet('Akshitha')
```

```
Akshitha
Good Morning
```

22. Write a function power(base, exponent=2) that returns square by default.

```
In [26]: def power(base,exponent=2):
    square = base ** exponent
    print(square)

power(2)
```

```
4
```

23. Write a function bill(amount, tax=0.05) that returns the total bill.

```
In [28]: def bill(amount,tax=0.05):
    total = amount+tax
    print(total)
bill(12000)
```

12000.05

24.Write a function `login(username, role="guest")` that prints login details.

```
In [30]: def login(username,role='guest'):
    print(username,'is a',role)

login('Simran')
```

Simran is a guest

25.Write a function `travel(destination, country="India")`.

```
In [31]: def travel(destination,country='India'):
    print(destination, 'to ',country)

travel('banglore')
```

banglore to India

26.Write a function `coffee(type="Latte", size="Medium")`.

```
In [32]: def coffee(type='Latte',size='Medium'):
    print('customer wants',type,size,'coffee')

coffee()
```

customer wants Latte Medium coffee

27.Write a function `increment(num, step=1)` that increments by the step value.

```
In [33]: def increment(num,step=1):
    print(num+1)
    print(step+1)

increment(23)
```

24

2

28. Write a function area_circle(radius, pi=3.14).

```
In [34]: def area_circle(radius,pi=3.14):
    print('Area of circle',pi*radius**2)

area_circle(23)
```

Area of circle 1661.0600000000002

29. Write a function email(to, subject="No Subject", body="-- Empty --").

```
In [35]: def email(to,subject='no subject',body='--Empty--'):
    print(to,subject,body)

email('akshithaheerakar9843@gmail.com')
```

akshithaheerakar9843@gmail.com no subject --Empty--

30. Write a function discount(price, percent=10) that returns final price after discount.

```
In [38]: def discount(price,percent=10):
    print(price-(price*0.10))

discount(25000)
```

22500.0