Passing Parameters

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➢ **Positional / Required Arguments**

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➢**Default Arguments**

```
def interest (principal, time, rate = 0.10) :
```

This is default value for parameter **rate**. If in a function call, the value for **rate** is not provided, Python will fill the missing value (*for rate only*) with this value.

020 DEFAULT ARGUMENTS

```python
def intrest(p, t, r = 0.10):  1 usage
    print(p * t * r / 100)
intrest( p: 5200, t: 2)


def intrest(p, t, r):  1 usage
    print(p * t * r / 100)
intrest( p: 5200, t: 2, r: 0.15)
```

021 DEFAULT ARGUMENTS

```python
def intrest(p, t, r):  1 usage
    si = p * t * r / 100
    return si

a=int(input("Enter Principal: "))
b=int(input("Enter Time: "))
c=int(input("Enter Rate of Intrest: "))
d = intrest(a, b, c)
print("The Simple Intrest is: ", d)
```

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➢**Keyword (Named) Arguments**

022 KEYWORD ARGUMENTS

```python
def intrest(principal, time=2, rate=0.10):  2 usages
    return principal * rate * time
prin=float(input("Enter Principal Amount: "))
print("Simple Intrest with Default ROI and Time Values is: ")
si1=intrest(prin)
print("Rs.", si1)
roi=float(input("Enter Rate of Intrest (ROI): "))
time=int(input("Enter Time in Years: "))
print("Simple Intrest with Your Provided ROI and Time Values is: ")
si2=intrest(prin,time, roi/100)
print("Rs.", si2)
```

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➢**Using Multiple Arguments Types Together**

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Function call statement	Legal / illegal	Reason
interest(prin = 3000, cc = 5)	legal	non-default values provided as named arguments
interest(rate = 0.12, prin = 5000, cc = 4)	legal	keyword arguments can be used in any order and for the argument skipped, there is a default value
interest(cc = 4, rate = 0.12, prin = 5000)	legal	with keyword arguments, we can give values in any order
interest(5000, 3, rate = 0.05)	legal	positional arguments before keyword argument; for skipped argument there is a default value
interest(rate = 0.05, 5000, 3)	illegal	keyword argument before positional arguments
interest(5000, prin = 300, cc =2)	illegal	Multiple values provided for *prin* ; once as positional argument and again as keyword argument
interest(5000, principal = 300, cc = 2)	illegal	undefined name used (*principal* is not a parameter)
interest(500, time = 2, rate = 0.05)	illegal	A required argument (*cc*) is missing.

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```python
def interest(principal, time = 2, rate = 0.10) :
    return principal * rate * time
```

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```python
# __main__
prin = float(input("Enter principal amount :"))
print("Simple interest with default ROI and time values is :")
si1 = interest(prin)
print("Rs.", si1)
roi = float(input("Enter rate of interest (ROI) :"))
time = int(input("Enter time in years :"))
print("Simple interest with your provided ROI and time values is :")
si2 = interest(prin, time, roi/100)
print("Rs.", si2)
```