

Experiment No:-8

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- Q1 write a function to find the square of a number
- Q2 write a function to check whether a number is even or odd.
- Q3 write a function to find the sum of two numbers
- Q4 write a function to find the factorial of a number
- Q5 write a function to check whether a number is prime
- Q6 write a function to reverse a string.
- Q7 write a function to count vowels in a string.
- Q8 write a function to find the largest of three numbers.
- Q9 write a function to calculate simple interest.

Answer :-

```
① def square(a):  
    return a**2
```

```
a = int(input("Enter a number :- "))  
Print (f "{a}^2 = {square(a)}")
```

Output:-

Enter a number :- 5

$5^2 = 25$

```
2 def check(a):
```

```
    return "Even" if a%2==0 else "Odd"
```

```
n=int(input("Enter a number :-"))
```

```
print(n, "is", check(n))
```

Output:-

Enter a number :- 15

15 is odd

3 def sum(a,b):

return a+b

a=int(input("Enter first number :-"))

b=int(input("Enter second number :-"))

Print(f"{a} + {b} = {sum(a,b)}")

Output:-

Enter first number :- 2

Enter second number :- 3

2 + 3 = 5

4 def fact(a):

return (1 if a==1 else a*fact(a-1))

a=int(input("Enter a number :-"))

Print(f"The factorial of {a} is {fact(a)}")

Output:-

Enter a number :- 4

The factorial of 4 is 24

5 def primeCheck(a):

for i in range(2,a):

if a%i==0:

return "not"

return ""

a=int(input("Enter a number :-"))

print(f"{a} is {primeCheck(a)} a prime number")

Output:-

Enter a number :- 15

15 is not a prime number

6 def rev(s):
 return (s if s==" " else (rev(s[1:]) + s[0]))

h = input("Enter a string :- ")
print(f"{h} reverse is :- {rev(h)}")

Output:-

Enter a string :- Rajesh

Rajesh reverse is :- hsejaR

7 def vowelCount(s):
 count = 0
 for i in s:
 if i in ['a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U']:
 count += 1
 return count

h = input("Enter a string :- ")
print(f"{h} contains {vowelCount(h)} vowels.")

Output:-

Enter a string :- Rajesh

Rajesh contains 2 vowels

8 `def largest(a,b,c):`
 `return a if (a>=b and a>=c) else b if (b>=c) else c`

```
a=int(input("Enter first number : "))
b=int(input("Enter second number : "))
c=int(input("Enter third number : "))
print("Largest among these three numbers is ", largest(a,b,c))
```

output:-

```
Enter first number :- 3
Enter second number :- 1
Enter third number :- 2
Largest among these three numbers is 3
```

9 `def SI(p,r,t):`
 `return (p*r*t)/100`
`p=float(input("Enter the principal amount :- "))`
`r=float(input("Enter the rate of interest :- "))`
`t=float(input("Enter the time period in year :- "))`
`print("Simple interest is ", SI(p,r,t))`

output:-

```
Enter the principal amount :- 20000
Enter the rate of interest :- 7
Enter the time period in year :- 2.4
Simple interest is 3360.0
```