**Python practice codes**

**Instructions : Be careful while writing code syntax:**

**Complete all codes from the given link for more hands on with python**

**1**

**# Python3 program to add two numbers**

**num1 = 15**

**num2 = 12**

**# Adding two nos**

**sum = num1 + num2**

**# printing values**

**print("Sum of {0} and {1} is {2}" .format(num1, num2, sum))**

**2**

**# Python3 program to add two numbers**

**number1 = input("First number: ")**

**number2 = input("\nSecond number: ")**

**# Adding two numbers**

**# User might also enter float numbers**

**sum = float(number1) + float(number2)**

**# Display the sum**

**# will print value in float**

**print("The sum of {0} and {1} is {2}" .format(number1, number2, sum))**

# **Python Program for factorial of a number**

3

Factorial of a non-negative integer, is multiplication of all integers smaller than or equal to n. For example factorial of 6 is 6\*5\*4\*3\*2\*1 which is 720.

# Python 3 program to find

# factorial of given number

def factorial(n):

# single line to find factorial

return 1 if (n==1 or n==0) else n \* factorial(n - 1);

# Driver Code

num = 5;

print("Factorial of",num,"is",

factorial(num))

**4**

**# Python3 program to find simple interest**

**# for given principal amount, time and**

**# rate of interest.**

**# We can change values here for**

**# different inputs**

**P = 1**

**R = 1**

**T = 1**

**# Calculates simple interest**

**SI = (P \* R \* T) / 100**

**# Print the resultant value of SI**

**print("simple interest is", SI)**

**5**

**# Python3 program to find compound**

**# interest for given values.**

**def compound\_interest(principle, rate, time):**

**# Calculates compound interest**

**CI = principle \* (pow((1 + rate / 100), time))**

**print("Compound interest is", CI)**

**# Driver Code**

**compound\_interest(10000, 10.25, 5)**

**6**

**# Python program to find Area of a circle**

**def findArea(r):**

**PI = 3.142**

**return PI \* (r\*r);**

**# Driver method**

**print("Area is %.6f" % findArea(5));**

**7**

**# Python program to print all**

**# prime number in an interval**

**start = 11**

**end = 25**

**for val in range(start, end + 1):**

**# If num is divisible by any number**

**# between 2 and val, it is not prime**

**if val > 1:**

**for n in range(2, val):**

**if (val % n) == 0:**

**break**

**else:**

**print(val)**

**8**

**# Python program to check if**

**# given number is prime or not**

**num = 11**

**# If given number is greater than 1**

**if num > 1:**

**# Iterate from 2 to n / 2**

**for i in range(2, num//2):**

**# If num is divisible by any number between**

**# 2 and n / 2, it is not prime**

**if (num % i) == 0:**

**print(num, "is not a prime number")**

**break**

**else:**

**print(num, "is a prime number")**

**else:**

**print(num, "is not a prime number")**

**9**

1. # Python Program to calculate the square root
2. # Note: change this value for a different result
3. num = 8
4. # To take the input from the user
5. num = float(input('Enter a number: '))
6. num\_sqrt = num \*\* 0.5
7. print('The square root of %0.3f is %0.3f'%(num ,num\_sqrt))

**10**

1. # Python Program to find the area of triangle
2. a = 5
3. b = 6
4. c = 7
5. # Uncomment below to take inputs from the user
6. a = float(input('Enter first side: '))
7. b = float(input('Enter second side: '))
8. c = float(input('Enter third side: '))
9. # calculate the semi-perimeter
10. s = (a + b + c) / 2
11. # calculate the area
12. area = (s\*(s-a)\*(s-b)\*(s-c)) \*\* 0.5
13. print('The area of the triangle is %0.2f' %area)

**11**

1. # Python program to find the factorial of a number provided by the user.
2. # change the value for a different result
3. num = 7
4. # To take input from the user
5. num = int(input("Enter a number: "))
6. factorial = 1
7. # check if the number is negative, positive or zero
8. if num < 0:
9. print("Sorry, factorial does not exist for negative numbers")
10. elif num == 0:
11. print("The factorial of 0 is 1")
12. else:
13. for i in range(1,num + 1):
14. factorial = factorial\*i
15. print("The factorial of",num,"is",factorial)

**12**

1. # Taking kilometers input from the user
2. kilometers = float(input("Enter value in kilometers: "))
3. # conversion factor
4. conv\_fac = 0.621371
5. # calculate miles
6. miles = kilometers \* conv\_fac
7. print('%0.2f kilometers is equal to %0.2f miles' %(kilometers,miles))
8. # Python Program to convert temperature in celsius to fahrenheit
9. # change this value for a different result
10. celsius = 37.5
11. # calculate fahrenheit
12. fahrenheit = (celsius \* 1.8) + 32
13. print('%0.1f degree Celsius is equal to %0.1f degree Fahrenheit' %(celsius,fahrenheit))

**13**

1. # Program to check if a number is prime or not
2. num = 407
3. # To take input from the user
4. num = int(input("Enter a number: "))
5. # prime numbers are greater than 1
6. if num > 1:
7. # check for factors
8. for i in range(2,num):
9. if (num % i) == 0:
10. print(num,"is not a prime number")
11. print(i,"times",num//i,"is",num)
12. break
13. else:
14. print(num,"is a prime number")
16. # if input number is less than
17. # or equal to 1, it is not prime
18. else:
19. print(num,"is not a prime number")

**14**

1. # Python program to find the largest number among the three input numbers
2. # change the values of num1, num2 and num3
3. # for a different result
4. num1 = 10
5. num2 = 14
6. num3 = 12
7. # uncomment following lines to take three numbers from user
8. num1 = float(input("Enter first number: "))
9. num2 = float(input("Enter second number: "))
10. num3 = float(input("Enter third number: "))
11. if (num1 >= num2) and (num1 >= num3):
12. largest = num1
13. elif (num2 >= num1) and (num2 >= num3):
14. largest = num2
15. else:
16. largest = num3
17. print("The largest number is", largest)

**15**

1. # Program make a simple calculator
2. # This function adds two numbers
3. def add(x, y):
4. return x + y
5. # This function subtracts two numbers
6. def subtract(x, y):
7. return x - y
8. # This function multiplies two numbers
9. def multiply(x, y):
10. return x \* y
11. # This function divides two numbers
12. def divide(x, y):
13. return x / y
14. print("Select operation.")
15. print("1.Add")
16. print("2.Subtract")
17. print("3.Multiply")
18. print("4.Divide")
19. # Take input from the user
20. choice = input("Enter choice(1/2/3/4): ")
21. num1 = float(input("Enter first number: "))
22. num2 = float(input("Enter second number: "))
23. if choice == '1':
24. print(num1,"+",num2,"=", add(num1,num2))
25. elif choice == '2':
26. print(num1,"-",num2,"=", subtract(num1,num2))
27. elif choice == '3':
28. print(num1,"\*",num2,"=", multiply(num1,num2))
29. elif choice == '4':
30. print(num1,"/",num2,"=", divide(num1,num2))
31. else:
32. print("Invalid input")