

```
#1 Python program to check prime number.

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

if num > 1:
    for i in range(2, num):
        if (num % i) == 0:
            prime = True
        else:
            prime = False

if prime == True:
    print('The entered number is not a prime number.')
elif prime == False:
    print('The entered number is a prime number.')
```

Output:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
```

```
sys.path.extend(['D:\\CODING\\PYTHON', 'D:/CODING/PYTHON'])
```

PyDev console: starting.

Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 6 2021, 13:40:21) [MSC v.1928 64 bit (AMD64)] on win32

```
runfile('D:/CODING/PYTHON/venv/program12.py', wdir='D:/CODING/PYTHON/venv')
```

Enter a number: >? 17

The entered number is a prime number.

```
#2 Python program to read a a number n and compute  n + nn + nnn..

n=int(input("Enter a number n: "))
temp=str(n)
t1=temp+temp
t2=temp+temp+temp
```

```
comp=n+int(t1)+int(t2)
print("The value is:",comp)
```

Output:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\CODING\\PYTHON', 'D:/CODING/PYTHON'])
```

PyDev console: starting.

Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 6 2021, 13:40:21) [MSC v.1928 64 bit (AMD64)] on win32

runfile('D:/CODING/PYTHON/venv/program12.py', wdir='D:/CODING/PYTHON/venv')

Enter a number n: >? 2

The value is: 246

```
#3 Python Program to Read Two Numbers and Print Their Quotient and
Remainder

a=int(input("Enter the dividend number: "))
b=int(input("Enter the divisor number: "))
quotient=a//b
remainder=a%b
print("Quotient is:",quotient)
print("Remainder is:",remainder)
```

Output:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
```

```
sys.path.extend(['D:\\CODING\\PYTHON', 'D:/CODING/PYTHON'])
```

PyDev console: starting.

Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 6 2021, 13:40:21) [MSC v.1928 64 bit (AMD64)] on win32

```
runfile('D:/CODING/PYTHON/venv/program12.py', wdir='D:/CODING/PYTHON/venv')
```

Enter the dividend number: >? 25

Enter the divisor number: >? 5

Quotient is: 5

Remainder is: 0

```
#4 Python program to check if a given number is the Fibonacci number or not.
```

```
import math
```

```
number = int(input("Please enter an integer: "))
```

```
number1 = (5 * number * number) + 4
```

```
number2 = (5 * number * number) - 4
```

```
fibonacci = ((pow(number1,2) == number) or (pow(number2,2) == number))
```

```
if (fibonacci == True):
```

```
    print("Number {0} is in Fibonacci Series.".format(number))
```

```
else:
```

```
    print("Number {0} is not in Fibonacci Series.".format(number))
```

Output:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
```

```
sys.path.extend(['D:\\CODING\\PYTHON', 'D:/CODING/PYTHON'])
```

PyDev console: starting.

Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 6 2021, 13:40:21) [MSC v.1928 64 bit (AMD64)] on win32

```
runfile('D:/CODING/PYTHON/venv/program12.py', wdir='D:/CODING/PYTHON/venv')
```

Please enter an integer: >? 3

Number 3 is not in Fibonacci Series.

```
#5 Python program to check Armstrong number

import math

number = int(input("Enter an integer: "))
number1 = number
count = 0
while (number1 != 0):
    count += 1
    number1 = number1 // 10
number2 = number
sum = 0
while (number2 != 0):
    r = number2 % 10
    sum = sum + math.pow(r, count)
    number2 = number2 // 10
if sum == number:
    print("Number {0} is an Armstrong number.".format(number))
else:
    print("Number {0} is not an Armstrong number.".format(number))
```

Output:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\CODING\\PYTHON', 'D:/CODING/PYTHON'])
PyDev console: starting.
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 6 2021, 13:40:21) [MSC v.1928 64 bit (AMD64)] on win32
runfile('D:/CODING/PYTHON/venv/program12.py', wdir='D:/CODING/PYTHON/venv')
Enter an integer: >? 1556
Number 1556 is not an Armstrong number.
```

```
#6 Take the values of length and breath and check whether given values form
square or rectangle.

length = float(input('Please enter the value of length: '))
breath = float(input('Please enter the value of breath: '))

if length == breath:
    print('The given values will form a square.')
else:
    print('The given values will form a rectangle.')
```

Output:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\CODING\\PYTHON', 'D:/CODING/PYTHON'])
PyDev console: starting.
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr 6 2021, 13:40:21) [MSC v.1928 64 bit (AMD64)] on win32
runfile('D:/CODING/PYTHON/venv/program12.py', wdir='D:/CODING/PYTHON/venv')
```

Please enter the value of length: >? 14

Please enter the value of breath: >? 7

The given values will form a rectangle.