```
#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.')
```

Enter a number: 5

The entered number is a prime number.

```
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)
```

Enter a number n: 7

The value is: 861

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

Enter the dividend number: 8

Enter the divisor number: 3

Quotient is: 2

Remainder is: 2

```
#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))
```

Please enter an integer: 7

Number 7 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))
```

Enter an integer: 157

Number 157 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:

Please enter the value of length: 8

Please enter the value of breath: 8

The given values will form a square.