

1. Print the first 10 natural numbers using for loop

```
for i in range(1, 11):  
    print(i)
```

2. Python program to check if the given string is a palindrome

```
string = input("Enter a string: ")  
if string == string[::-1]:  
    print("The string is a palindrome.")  
else:  
    print("The string is not a palindrome.")
```

3. Python program to check if a given number is an Armstrong number

```
num = int(input("Enter a number: "))  
sum_of_cubes = sum([int(digit) ** 3 for digit in str(num)])  
if num == sum_of_cubes:  
    print("The number is an Armstrong number.")  
else:  
    print("The number is not an Armstrong number.")
```

4. Python program to get the Fibonacci series between 0 to 50

```
a, b = 0, 1  
while a <= 50:  
    print(a, end=" ")  
    a, b = b, a + b
```

5. Python program to check the validity of password input by users

```
import re  
password = input("Enter a password: ")  
if (len(password) >= 8 and  
    re.search(r"[A-Z]", password) and  
    re.search(r"[a-z]", password) and  
    re.search(r"[0-9]", password) and  
    re.search(r"[!@#$%^&*()_.?\":{}|<>]", password)):  
    print("Password is valid.")  
else:  
    print("Password is invalid. It must be at least 8 characters long, and include an uppercase letter, a lowercase letter, a number, and a special character.")
```