

```
# Python program to swap two variables

x = 5
y = 10

# To take inputs from the user
#x = input('Enter value of x: ')
#y = input('Enter value of y: ')

# create a temporary variable and swap the values
temp = x
x = y
y = temp

print('The value of x after swapping: {}'.format(x))
print('The value of y after swapping: {}'.format(y))
```

## Output

```
The value of x after swapping: 10
The value of y after swapping: 5
```

## Source Code: Without Using Temporary Variable

In Python, there is a simple construct to swap variables. The following code does the same as above but without the use of any temporary variable.

```
x = 5
y = 10

x, y = y, x
print("x =", x)
print("y =", y)
```

## 2. EVEN OR ODD NUMBER

```
# Python program to check if the input number is odd or even.  
# A number is even if division by 2 gives a remainder of 0.  
# If the remainder is 1, it is an odd number.  
  
num = int(input("Enter a number: "))  
if (num % 2) == 0:  
    print("{0} is Even".format(num))  
else:  
    print("{0} is Odd".format(num))
```

### Output 1

```
Enter a number: 43  
43 is Odd
```

### Output 2

```
Enter a number: 18  
18 is Even
```

### 3. check if its prime number

```
# Program to check if a number is prime or not

num = 29

# To take input from the user
#num = int(input("Enter a number: "))

# define a flag variable
flag = False

if num == 1:
    print(num, "is not a prime number")
elif num > 1:
    # check for factors
    for i in range(2, num):
        if (num % i) == 0:
            # if factor is found, set flag to True
            flag = True
            # break out of loop
            break

    # check if flag is True
    if flag:
        print(num, "is not a prime number")
    else:
        print(num, "is a prime number")
```

### Output

```
29 is a prime number
```