Let's build a simple calculator

1. Create two variables and assign 10, and 5 respectively to these.
2. Now do the following operations on these two variables:
    a. Addition (+)
    b. Subtraction (-)
    c. Multiplication (*)
    d. Floating Point Division (/)
    e. Floor Division (//)
    f. Exponent Operation (**)
    g. Modulo Operation (%)

    And print all these values.

Code:

```
a = 10
b = 5

print(a + b)
print(a - b)
print(a * b)
print(a / b)
print(a // b)
print(a ** b)
print(a % b)
```

Activity

Previously, we wrote a script to swap two numbers. Now the swapping can also be done with the help of arithmetic operators. Let's try to do this.

1. **Firstly, we will use addition and subtraction for swapping.**
   Hint: If we add two numbers and subtract the second number from them, we are left with the first number. Right!

   ```
   x = x + y
   y = x - y
   x = x - y
   ```

2. **We can also swap with the help of Multiplication and Division.**
   Hint: Again, if we multiply two numbers and then divide the second number from it, we are left with the first number.

   ```
   x = x * y
   y = x / y
   ```

```
x = x / y
```

3. **And then, there is another way that only works for integers (XOR).**
   Hint: The XOR operator (^) works on binary numbers. Firstly it converts the integer to binary form and performs the XOR operation (outputs 1 if the bits differ; otherwise, 0.)
   Example:

   x = 10, y = 5

   Binary form of 10: 1010
   Binary form of 5: 0101
   XOR of x and y: 1111

   Now if we store this value in 'x', then

```
x = x ^ y          # stores the value of x XOR y in x
y = x ^ y          # stores the value of x in y
x = x ^ y          # stores the value of y in x
```