

Python Numbers

Number data types store numerical values. Python supports Integers, floating-point numbers, and complex numbers. They are defined as `int`, `float`, and `complex` classes.

- Integers can be of any length (Limited by the memory available). They do not have a decimal point and can be positive or negative.
- A floating-point number is a number having a fractional part. The presence of a decimal point indicates a floating-point number. They have a precision of up to 15 digits but it can vary based on the system on which python is running.
- 1 is an integer, and 1.0 is a floating-point number.
- Complex numbers are $x + yj$, where x is the real part and y is the imaginary part.

We can use the `type()` function to know which class a variable or a value belongs to. Similarly, the `isinstance()` function checks if an object belongs to a particular class.

Here are a few examples:-

```
b = 5
print(b, "is of type", type(b))
b = 2.0
print(b, "is of type", type(b))
b = 1+2j
print(b, "is complex number?", isinstance(b,complex))
```

And we will get the output as:

```
5 is of type <class 'int'>
```

```
2.0 is of type <class 'float'>
```

```
1+2j is complex number? True
```