

## Arithmetic Operators

```
In [1]: 1 + 1
```

```
Out[1]: 2
```

```
In [2]: 4 * 5
```

```
Out[2]: 20
```

```
In [3]: 5 ** 2
```

```
Out[3]: 25
```

```
In [4]: 20 / 5
```

```
Out[4]: 4.0
```

```
In [5]: 20 / 6
```

```
Out[5]: 3.3333333333333335
```

```
In [6]: 20 % 6
```

```
Out[6]: 2
```

## Arithmetic Operators with Strings

```
In [7]: 'string 1 ' + 'string 2'
```

```
Out[7]: 'string 1 string 2'
```

```
In [8]: '- string 1 - ' * 4
```

```
Out[8]: '- string 1 - - string 1 - - string 1 - - string 1 - '
```

```
In [9]: ' 1' + 4
```

```
-----  
TypeError
```

```
Traceback (most recent call last)
```

```
Input In [9], in <module>
```

```
----> 1 ' 1' + 4
```

```
TypeError: can only concatenate str (not "int") to str
```

# Comparison, Logical, and Membership Operators

## Comparison Operators

In [10]: `True == True`

Out[10]: True

In [11]: `4 < 5`

Out[11]: True

In [12]: `5 <= 5`

Out[12]: True

In [13]: `5 > 2`

Out[13]: True

In [14]: `5 >= 2`

Out[14]: True

## Logical Operators (and, or, not)

In [15]: `True and True`

Out[15]: True

In [16]: `True and False`

Out[16]: False

In [18]: `True or False`

Out[18]: True

In [19]: `False or False`

Out[19]: False

In [20]: `not True`

Out[20]: False

```
In [21]: not False
```

```
Out[21]: True
```

## Membership Operators

```
In [22]: 1 in [1,2,3,4,5]
```

```
Out[22]: True
```

```
In [24]: 10 not in [1,2,3,4,5]
```

```
Out[24]: True
```

```
In [26]: 'cat' not in 'my pet cat'
```

```
Out[26]: False
```

```
In [ ]:
```