



4.1.1 Arithmetic Operations

Arithmetic Operations

Addition

```
a = 12
b = 8
result = a + b
print(result)
```

Subtraction

```
temperature = 25
drop = 7
new_temperature = temperature - drop
print(new_temperature)
```

Multiplication

```
price = 15
quantity = 4
total = price * quantity
print(total)
```

Real/Float Division

```
print(10 / 2)
print(7 / 2)
```

Output:

```
5.0
3.5
```





Integer Division

```
print(7 // 2)
```

Output:

```
3
```

For positive numbers, integer division keeps the whole-number part of the result.

Remainders (Modulus)

```
number = 12
if number % 2 == 0:
    print("Even")
```

The % operator gives the remainder after division. Here, $12 \div 2$ has a remainder of 0, so the number is even..

Exponentiation

```
print(2 ** 3)
```

Output:

```
8
```

Because $2^3 = 8$.

Rounding

```
print(round(4.7))
print(round(4.2))
```

Output:

```
5
```

```
4
```





Truncation

```
print(int(7.9))
```

Output:

```
7
```

