

Chapter 1 outline:

- ▶ Introduction, sets and elements (this past Wednesday)
- ▶ Python expressions (**Today**)
- ▶ Python functions; denoting sets (next week Wednesday)
- ▶ Set operations; visual verification of set propositions (next week Friday)
- ▶ Various set topics; powersets (week-after Monday)

Today:

- ▶ The Jupyter notebook environment
- ▶ Expressions
- ▶ Types
- ▶ Variables
- ▶ Functions

```
2**13 - (5**1.25 / 3)
```

```
len('jupyter') > (16 // 3)
```

```
len(str(4*7.4)) == 17 % 4
```

```
(8/2) + int('dw' in 'sand' + 'wich')
```

Which of the following is **not** true?

- ▶ A set can contain the same element more than once. ✓
- ▶ A set is unordered.
- ▶ A set can contain elements other than numbers.
- ▶ A set can be empty.

- ▶ An **expression** is a programming construct that evaluates to a value.
- ▶ A **literal** is the simplest expression that evaluates to a specific value.
- ▶ A **type** is a set of values associated because of how they are stored in computer memory and what operations are available for them.
- ▶ A **subexpression** is an expression that is part of a larger expression.
- ▶ An **operator** is a symbol that can be applied to one or more expressions to make a larger expression.

| Type | Kind of information |
|-------|-----------------------------------|
| int | whole numbers and their opposites |
| float | real numbers |
| str | text |
| bool | true or false |
| type | types |

Which of the following is **not** a str operator?

- ▶ `//` ✓
- ▶ `+`
- ▶ `*`
- ▶ `in`

Which of the following is **not** true about types?

- ▶ *Literal* is a kind of type. ✓
- ▶ `type` is itself a type.
- ▶ Types are themselves values.
- ▶ In some cases, you can convert a value from one type to another.

For next time:

Pg 8: Exercises 1.1.(1-3)

Pg 16-17: Exercises 1.2.(1, 2, 6, 8, 9, 10, 11)

Review Section 1.2 as necessary

Read Sections 1.(3 & 4)

Take quiz