Chapter 1 outline:

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

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Cardinality, Cartesian products, powersets (next week Friday)

Today:

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

 $\blacktriangleright$  A set can contain the same element more than once.  $\checkmark$ 

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- 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.

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## 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?



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 7: Exercises 1.1.(1-3) Pg 13-15: Exercises 1.2.(1, 2, 6, 10) Review Section 1.2 as necessary Read Sections 1.(3 & 4) Take quiz