

# **Variables and Assignment-operator**

# Objective

- Understand how to assign and use variables
- Learn python variable naming conventions and restrictions
- Learn and use some of the different data types available in python
- Understand how to convert data types
- Learn ins and outs of strings!
- Build a program

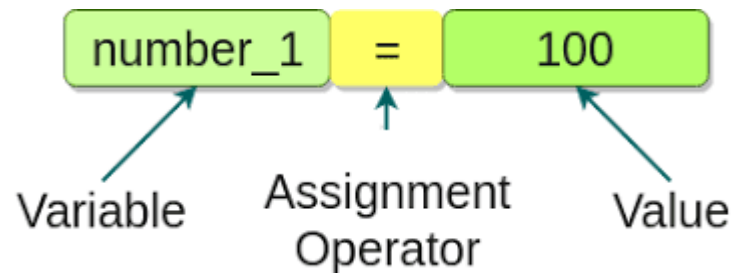
# Variables and Assignment operator

A variable in python is like a variable in math:

It is a named symbol that holds a value.

“=” is assignment operator

e.g `number_1 = 100`



Variables are always assigned with the variable name on the left and the value on the right of the equals sign.

Variable must be assigned before they can be used.

# Variables assignment

Variables can be assigned to other variables

e.g `num_of_cats = 100`

`just_another_var = num_of_cats`

Reassigned at anytime

e.g `num_of_cats = 250`

# Naming Restrictions

In Python, you can name your variables whatever you want, with some restrictions

- Variables must start with a letter or underscore
- The Rest of the name must consist of letters, numbers or underscores
- Names are case-sensitive

# Naming Conventions

Most python programmers prefer to use standard style conventions when naming things

- Most variables should be snake\_case (underscores between words)
- Most variables should be lowercase, with some exceptions, CAPITAL\_SNAKE\_CASE usually refers to constants  $\pi = 3.14$