Variables

Assignment Statement

Form:

«variable» = «expression»

How it's executed:

Evaluate the expression on the right-hand side (RHS) to produce a value.
This value has a memory address.

Store that memory address in the variable on the left-hand side (LHS).
(Create a new variable if it doesn’t exist; otherwise just reuse the existing variable.)

Terminology

For this statement:

x = 7

We say:

“x gets 7”
“x refers to the value 7”
“x contains memory address id1”
“memory address id1 is stored in variable x”

Variable Names

Must start with a letter (or underscore).

Can include letters, digits, and underscores, but nothing else.

Case matters:

age = 11
aGe # Error!  This is not defined.

Valid: _moo_cow, cep3, I_LIKE_TRASH

Invalid: 49ers, @home
Conventions for the format of names

there's a good reason why words have a standard capitalization scheme

python convention: pothole_case

camelCase is sometimes seen, but not for function and variable names

rarely, single-letter names are capitalized: L, X, Y

when in doubt, use lowercase_pothole

Choosing good names

Python doesn't care about the content of the names, only their format. (It doesn't understand English.)

For example, these are equally fine names to Python: xx3, class_average, fraggle

We choose names that will be meaningful to the humans who will read our code.

Example: if you are adding something up, total is better than x.
You will be graded on the names you pick.