

cs2220

4-7-20

1

• ext. Pal

Due Thurs 4-9, 10:00 PM

• PythonAnywhere

- files
- shells

• Bash shell

- Pwd
- ls
- move
- cd
- Python3

• Other Tools

- install Python from [Python.org](https://python.org)
- Idle IDE
- PyScripter (Windows only)
- Jupyter Notebooks (TA Ischani)

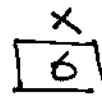
Recall :

variables $\neq$ values $\neq$ data types

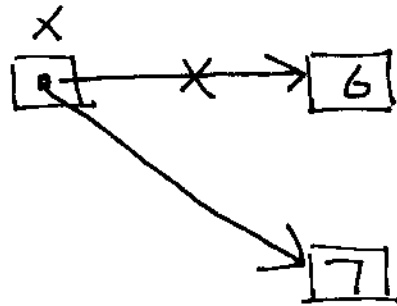
note in python variables do not have a type, only their values do.

Picture

$x = 6$



better picture



$x = 7$

Arithmetic expressions : PEMDAS

- P - Parentheses
- E - exponents
- M - mult &
- D - div
- A - add
- S - sub

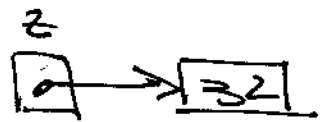
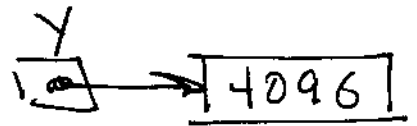
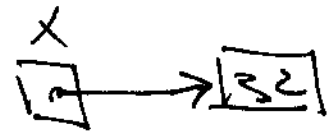
Ex,

$$x = (2 * 3) * 4 \longrightarrow 32$$

$$y = 2 * (3 * 4)$$

$$z = 2 * 3 * 4$$

Picture



Rule: insert Parentheses to aid readability.

Variable names

- may be arbitrarily long
- may consist of letters, underscore and digits only
- may not begin with a digit
- may not be a Python keyword

chap. 4 : Functions

- A function is a named set of instructions packaged for re-use.
- two contexts
 - function definitions
 - function calls

To call a function is to execute the instructions in it. so far, we've called built-in functions, or functions from some library.

<u>EX.</u>	Print(....)	built-in
	input(....)	"
	math.factorial(...)	library math
	math.Pow(.,.)	" "
	Pow(.,.)	built in
	:	:

To define a new function,
use def.

template:

```

# comment
def name ( , , , ... ) :
    statement
    statement
    :
    statement
# end name
    
```

name of fn.
Parameter list
function body
indent

- fn name follows same rules for variables: (letters, underscores, digits, no initial digit, no keywords.)
- Parameter list: comma separated list of variable names.
- fn body

Ex. Function1.py