

Syntax Guide | Teknowledge | Labs 1 & 2

print()

outputs a string to the "terminal"

```
print("hi")
print("both of these " + "are printed")
print(42) # we can print numbers too
```

variable

stores a piece of information

```
x = 1
print("x is", x)
name = "Cody"
print("hi " + name + "!!")
```

input(prompt)

gets user input - *pauses* program until user presses ENTER, *returns* anything that they typed as a string

```
name = input("Enter your name: ")
print("Your name is", name)
input("Press enter to continue...")
```

if statement

do this code *if* this *condition* is true

```
if statement
answer = input("what is 1 + 1? \n Type your answer, then press
enter: ")
if (answer == "2"):
    print("right!")
else:
    print("wrong!")
```

functions

a *defined* group of code that can be *called* multiple times and optionally with *arguments* and with a *return value*

```
def f():
    print("I am in a function, f!")
    print("Now I am calling function g (with an argument of the
integer 5)")
    returnValue = g(5)
    print("Function g returned to me the value:", returnValue)

def g(x):
    print("I am in another function, g!")
    print("I recieved an argument:", x)
    print("I am going to return the string 'wahoo'")
    return "wahoo"

print("I am before the function call to f")
f()
print("I am after the function call to f")
```

math

python can do math! things work mostly as you would expect (remember your order of operations!)

```
Addition : +
Subtraction : -
Multiplication : *
Division : //
Exponent : ^
```

```
x = 1 + 4 - 3
y = 2*(5 + x)
```

randint(lower_bound, upper_bound)

how to get a random number

```
from random import randint # put this at the top of your .py
file
print(randint(0, 10)) # prints a random number from 0 to 10
(including 10)
```