

# Functions

## Syntax for defining a function:

```
def name_of_function():  
    statement                # This block of statements  
    statement                # is called the body of  
    statement                # the function definition.  
    ...
```

Lines of the body of the function must be indented with tabs or spaces. The Python editor (IDLE) will do this for you.

*Defining a function does not run the statements in the body.* It saves that code so that it can be run later, by *calling* the function by its name.

## Syntax for calling a function:

```
name_of_function()
```

Whenever Python sees a function call, it finds the definition of that function, jumps to the first line of the definition, executes all the statements in the body of the function definition, then jumps back to the line of your program following where the function was originally called.

## Tips for functions:

- You can put anything you want inside the body of a function definition, including print statements, input statements, math, or calls to other functions.
- Don't put function definitions inside other function definitions! It's legal, but weird things happen.
- For programs that use functions, always write a main() function and put the "main" code for your program inside this function. This is a good rule of thumb so you always know where your program "begins." Then be sure to call main() at the end of your Python file.