

Our First Function

Sample Function

As we've seen, a function can do the following:

1. Take in some values from the main program inside brackets,
2. Do some activity using the usual programming commands,
3. Return a result back to the main program.

A simple example might be to determine whether or not a number is odd or even. To make things easy for ourselves, we should choose whether we are testing if the number is even or testing if the number is odd. We can pick either, but in the example below we'll check if the number is even, and we'll call it `IsEven`. If we find the number is even, we will return `True`, and if the number is odd, we will return `False`. So the number that goes into the function is going to be called `InputNumber`, and we check if it divides evenly into the number 2, if it does we set a variable to `True`, and if not, we set it to `False` (the variable is called `ReturnValue` here). Finally, we return that result back to the main program:

IsEven FUNCTION

```
def IsEven (InputNumber) :

    if (InputNumber % 2) == 0:
        ReturnValue = True #it's even
    else:
        ReturnValue = False #it's odd
    # EndIf;

    return ReturnValue
# END IsEven.
```

The Main Program

The main program that calls this function should be contained in the same Python file as the function (after the function), and if we put the following in:

```
print (IsEven (4))
```

Python will tell the `IsEven` function to put the number "4" into the `InputNumber` variable, and we will get the following output:

```
True
```

And if put the following in:

```
print (IsEven (3))
```

Python will map the number "3" onto `InputNumber` variable, and we will get:

```
False
```

So Python looks at the value in the brackets when the function `IsEven` is called and will map that onto the `InputNumber` variable.