

# MODULE 4

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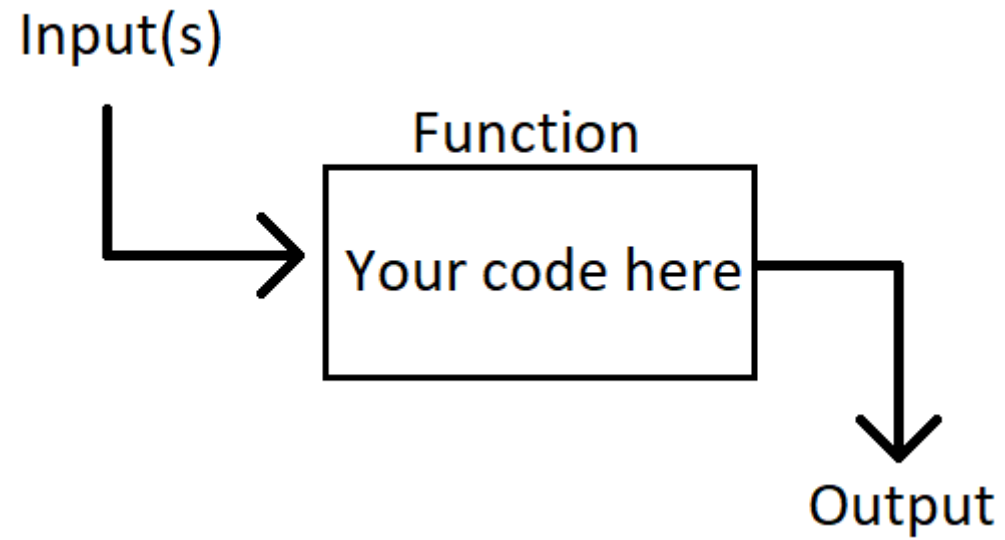
FUNCTIONS AND DEBUGGING MODE

# Functions

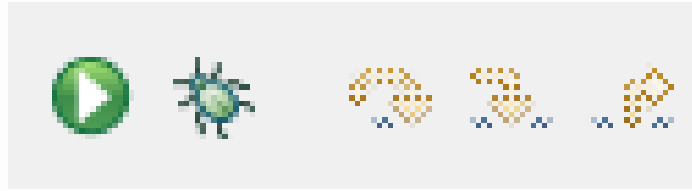
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Similar to functions in math, functions in code accept input and provide output that you can reuse.

Functions are also useful for testing & debugging your code which we will see later on.



# Debug Mode



Run, Debug, Step Over, Step Into, Step Out

Debug mode will run your code one line at a time and allows you to see when and where events happen as well as the values of your variables at the time.

This is not a feature available everywhere but is available on common tools like eclipse, visual studio which are popular programs for languages like Java, C, C++, C#

There are three main operations to know when using Debug mode

Step Over – Passes over the current line of code

Step Into – If the current line of code redirects to another function this will move the cursor to that code.

Step Out – If you are in a different function (from step into) then this will get you out.

# Try it out

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Create a function that returns the sum of all integers in an array

Create a function that calculates the median of an array of integers

In a main method use that function to calculate the average(mean) of an array of numbers.

Obtain a copy of “recursion.py” from the Module 4 folder, then use debug mode to track its execution.