

# Lab7: Function

## Function Call Type Error

```
>>>> PNoggin Interactive Shell <<<<<
> "hello"();
Error: Expected a defined function
[line 0]
> █
```

When you attempt to “call” something that is not a function it will raise an error stating expected a defined function.

## Function Call Arity Error

```
>>>> PNoggin Interactive Shell <<<<<
> def two_inputs(a, b) { print(a, b); }
> two_inputs("one input");
Error: Expected 2 arguments but got 1.
[line 0]
> two_inputs("three inputs", 15, 20);
Error: Expected 2 arguments but got 3.
[line 0]
```

When there is a mismatch between arguments and parameters, and error is raised that states the different numbers expected and received.

## Native Functions Clock, Max, and Min

```
>>>> PNoggin Interactive Shell <<<<<
> clock();
1763095711.8799157
> print(min(-10, 10));
-10.0
> print(max(10, -10));
10.0
> clock();
1763095737.4743423
```

Clock returns the internal clock time using the python module. Min and max both take two inputs, and will return the min or max respectively.

## Function Declarations

```
>>>> PNoggin Interactive Shell <<<<<
> def no_return(a) { print(a); }
> def with_return(a) { return a + 5; }
> def with_empty_return(a) { print(a); return; }
> print(no_return(10));
10.0
null
> print(with_return(20));
25.0
> print(with_empty_return(30));
30.0
null
```

No return and empty return functions will return null, and when functions return, they will be returned back as a value in this case to print to the terminal.