

**COMP 333
Summer 2022**

Higher-Order Functions in JavaScript

1.) Write a function named `callMe` which takes a function `foo` and will call `foo`.

```
function callMe(foo) {  
  foo();  
}
```

2.) Write a function named `indirectIf` which takes a boolean and two functions. If the boolean is `true`, call the first function. Otherwise, call the second function.

```
function indirectIf(booleanValue, f1, f2) {  
  if (booleanValue) {  
    f1();  
  } else {  
    f2();  
  }  
}
```

3.) Write a function named `indirectWhile` which takes two functions. The first function returns a boolean, and the second function returns nothing. `indirectWhile` should call the first function, and if the result is `true`, it should call the second function followed by a recursive call to itself with the same parameters. If the first function returns `false`, `indirectWhile` does nothing.

```
function indirectWhile(returnsBool, returnsNothing) {  
  if (returnsBool()) {  
    returnsNothing();  
    indirectWhile(returnsBool, returnsNothing);  
  }  
}
```

4.) Write a function named `wrapAdd` which takes a function (which itself takes one parameter) and an integer. `wrapAdd` should return a new function which takes a parameter, and will add this parameter to the integer before calling the passed function. For example:

```
function returnParam(param) { return param; }
```

```
let f = wrapAdd(returnParam, 5);  
let x = f(2); // x = 7  
let y = f(3); // y = 8
```

```
function wrapAdd(f, integer) {  
  return function(a) {  
    return f(a + integer);  
  }  
}
```