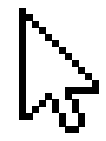




# Computer Science : JavaScript

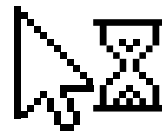


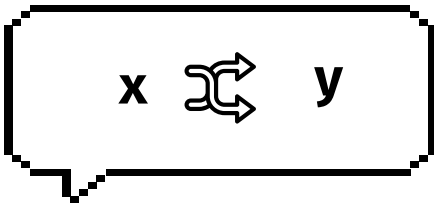
**Advanced 1: High-Order Functions**



# Higher-Order Functions

**Higher-Order Functions** are functions that accept other functions as arguments or parameters and/or return them as output.





01

Vocabulary



# Invoke

```
someFunction ( )
```



Invoking a function means the act of running or calling a function. So executing code within that function.

You invoke by adding parentheses. ( )



# 02

## Functions as Data


A pixelated speech bubble containing the text "404 NOT FOUND".

404 NOT FOUND



# Reassigning Functions

```
function seeTheRainbow() {  
  console.log ('Skittles')  
}  
  
const colors = seeTheRainbow;  
//reassign (function as data)  
  
colors() //calls the function
```



You can reassign function names using the keyword `const`, but when reassigning you will not invoke them. We don't want to reassign because we want to store the whole function as a value. If we invoke we are storing its output

This provides the perspective that functions can be stored as data.



03

# Functions as Parameters

Functions take data as arguments, and functions can be data themselves, so we can make functions parameters.

# Higher-Order Functions

```
const higherOrderFunc = param => {  
  param();  
  return `I just invoked ${param.name} as a  
  callback function!`  
}  
  
const anotherFunc = () => {  
  return 'I\'m being invoked by the higher-order  
  function!';  
}  
  
higherOrderFunc(anotherFunc);
```

When using a function as a parameter we do not invoke it. As seen in the bottom

## Overview:

higherOrderFunc: takes the parameters calls the parameter function and then returns a string with the parameter functions name

anotherFunc: just returns a string

higherOrderFunc(**anotherFunc**): returns the string in

higherOrderFunc with **anotherFunc** name appearing



# Practice

1. Log the previous function
2. Log the previous function, but change the code so the entire string in anotherFunc is logged within the code of higherOrderFunc

