

UNIT 3 REVIEW GUIDE

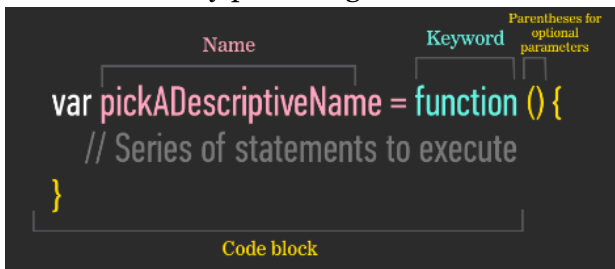
KEY TERMS & DEFINITIONS

Function

A reusable relationship between a set of inputs and a set of outputs that can be called from anywhere in a program. A function can be declared using a function expression or a function declaration.

Function Expression (Anonymous Functions)

Defines a function by producing a value that's stored in a variable.



```
var pickADescriptiveName = function () {
  // Series of statements to execute
}
```

Annotations in the diagram:

- Name:** pickADescriptiveName
- Keyword:** function
- Parentheses for optional parameters:** ()
- Code block:** The entire line of code from 'var' to the closing brace.

Function Declaration (Named Functions)

Are moved, or "hoisted," to the top of scope by the interpreter so you can call the function by name before defining it.



```
function pickADescriptiveName() {
  // Series of statements to execute
}
```

Annotations in the diagram:

- Keyword:** function
- Name:** pickADescriptiveName
- Code block:** The entire function definition from 'function' to the closing brace.

Parameters	Arguments
The variables that are defined in the function's declaration when the function is defined.	The actual values passed into the function when the function is called.
Ex: <pre>function doSomething (parameter) { // does something }</pre>	Ex: <pre>doSomething(argument)</pre>

Return Statement

Stops the execution of a function and potentially returns a value from that function.

Hoisting

The moving of declarations to the top of the scope by the interpreter.

Scope

Refers to the location in the code where a variable is accessible.

Global Scope

The ability of a variable to be accessed by all scripts and functions on a web page.

Global Variable

A variable declared outside a function. A global variable has global scope.

In this code segment, "brother" is a *global variable* with *global scope*:

```
var brother = "Bill"; // → Global Variable
var sayHello = function () {
  console.log("Hello " + brother); // → brother can be accessed here, inside a function
}
sayHello();

console.log("Hello " + brother); // → and brother can also be accessed from here. And from anywhere in the script!
```

Local Scope

The inability of a variable to be accessed outside of the function in which it was declared.

Local Variable

A variable that cannot be called or utilized outside of the brackets in which it's contained.

In this code segment, "brother" is a *local variable* with *local scope*:

```
var sayHello = function () {
  var brother = "Bill";
  console.log("Hello " + brother);
}
sayHello();
```

GUIDING QUESTIONS

1. What is a function?
2. Why are functions useful?
3. What is the difference between a function declaration and a function expression?
4. What is the difference between parameters and arguments?
5. What is local scope?
6. What is global scope?

COMMAND LIST

Command	Description
return value;	Exit function and return value if there is one