Chapter 2, Functions and Control Structures

Working with Functions, Short Quiz Answers

1. First the function must be defined, and then the function must be called.

2. The `return` statement returns the value to the statement that called the function.

3. Functions that do not require information from the calling statement and functions that use global variables do not need parameters.

4. Functions that only do work but do not return a value do not have a `return` statement.

5. A parameter that is passed by value means that the variable passed as a parameter is copied to a local variable within the function, and that local variable is used within the function. The value of the variable passed to the function is unchanged. A parameter that is passed by reference means that the original variable is used within the function, and the value of the variable passed to the function may be changed by the function.

Understanding Variable Scope, Short Quiz Answers

1. Scope indicates where a declared variable can and cannot be used.

2. A local variable is declared within a function and is only available within that function. When the function has completed execution, the variable ceases to exist. A global variable is declared outside a function and is available to all parts of the program.

3. `global`

Making Decisions, Short Quiz Answers

1. The keyword `if`, a conditional expression enclosed within parentheses, and the executable statements.

2. By placing a group of statements in a command block (surrounded by an opening and closing brace), the statements in one command block can execute if the result of a conditional expression evaluates to `TRUE`, and the group of statements in a different command block can execute if the result of a conditional expression is `FALSE`. Otherwise, each of the statements would need to be enclosed in its own `if` statement.

3.   The statement contained in the `default` label executes when the value returned by the `switch` statement expression does not match any of the `case` labels.

Repeating Code, Short Quiz Answers

1.   Code within the loop that changes the value of the conditional expression.

2.   `while`, `do...while`, `for`, and `foreach`

3.   A counter variable increments or decrements with each iteration of the loop.

4.   `foreach`

Including Files, Short Quiz Answers

1.   The `include` family of statements allows you to insert the content of external files in your PHP scripts.

2.   When you do not want your PHP script to continue processing if the external file is not available.

3.   The scripting engine starts fresh for each include file. This means that if you have a PHP script in the file that contains the `include` statement, you must include the PHP script delimiters in the include file. Otherwise, the include file is interpreted as XHTML.

4.   Saving all include files in a different folder separates complete files from code snippets and makes it easier to modify include files. Using a folder outside of the Web-accessible folders is also more secure. You can use either relative or absolute path notation to access the contents of include files.

Comprehension Check Answers

1.   c. function

2.   False

3.
```
function add($x,$y) {
      $sum=$x+$y;
      return $sum;
}
echo "2 + 5 = " , add(2,5);
```

4.   d. global

5.　c. within the braces of a function definition

6.　When PHP passes a parameter by value, a local copy of the variable is created and used by the function. When the function is complete, the variable no longer exists. When PHP passes a parameter by reference, the actual variable is used in the function; when the function is complete, any changes made to the variable by the function will remain.

7.　c. `if ($MyVariable == 10)`
　　　　`echo "Your variable is equal to 10.";`

8.　d. are contained within a command block

9.　b. `else echo "Displayed from an else clause.";`

10.　d. the value returned by a conditional expression

11.　False

12.　d. `default`

13.　a. `break`

14.　b. iteration

15.　b. `while ($i <= 5) {`
　　　　`$echo "<p>$i</p>";`
　　　　`++$i;`
　　`}`

16.　c. can be incremented or decremented

17.　An infinite loop is created when the loop does not contain code to change the value of a conditional expression.

18.　a. `for ($i = 0; $i < 10; ++$i)`
　　　　`echo "Displayed from a for statement.";`

19.　a. when the `for` statement begins executing

20.　True