

## Summing Up

- The lines of code that make up a function are called the function definition.
- A function parameter that is passed by a value is a local copy of the variable.
- A function parameter that is passed by a reference is a reference to the original variable.
- A global variable is declared outside a function and is available to all parts of your program.
- A local variable is declared inside a function and is only available within that function.
- The process of determining the order in which statements execute in a program is called decision making or flow control.



- The `if` statement is used to execute specific programming code if the evaluation of a conditional expression returns a value of `TRUE`.
- An `if` statement that includes an `else` clause is called an `if . . . else` statement. An `else` clause executes when the condition in an `if . . . else` statement evaluates to `FALSE`.
- When one decision-making statement is contained within another decision-making statement, they are referred to as nested decision-making structures.
- The `switch` statement controls program flow by executing a specific set of statements depending on the value of an expression.
- A loop statement is a control structure that repeatedly executes a statement or a series of statements while a specific condition is `TRUE` or until a specific condition becomes `TRUE`.
- A `while` statement tests a condition prior to executing a series of statements at each iteration of the loop.
- The `do . . . while` statement tests a condition after executing a series of statements.
- The `for` statement combines the initialization, conditional evaluation, and update portions of a loop into a single statement.
- The `foreach` statement is used to iterate or loop through the elements in an array.
- The `include`, `require`, `include_once`, and `require_once` statements insert the contents of an external file at the location of the statement.

## Comprehension Check

1. A(n) \_\_\_\_\_ allows you to treat a related group of PHP commands as a single unit.
  - a. statement
  - b. variable
  - ☒ c. function
  - d. event
2. Functions must contain parameters. True or False?  
**FALSE**
3. Explain how to use a `return` statement to return a value to a statement that calls a function.

Call on the function  
to be returned and echo'ed

4. A variable that is declared outside a function is called a \_\_\_\_\_ variable.
- a. local
  - b. class
  - c. program
  - ☒ d. global
5. A local variable must be declared \_\_\_\_\_.
- a. before a function
  - b. after a function
  - ☒ c. within the braces of a function definition
  - d. with the local keyword
6. Explain the difference between passing a parameter to a function by value versus by reference.  
Ref only refers to the value of a variable
7. Which of the following is the correct syntax for an if statement?
- a. `if ($MyVariable == 10);`  
`echo "Your variable is equal to 10.";`
  - b. `if $MyVariable == 10`  
`echo "Your variable is equal to 10.";`
  - ☒ c. `if ($MyVariable == 10)`  
`echo "Your variable is equal to 10.";`
  - d. `if ($MyVariable == 10),`  
`echo "Your variable is equal to 10.";`
8. An if statement can include multiple statements provided that they \_\_\_\_\_.
- a. execute after the if statement's closing semicolon
  - b. are not contained within a command block
  - c. do not include other if statements
  - ☒ d. are contained within a command block

9. Which is the correct syntax for an else clause?
- a. else (echo "Displayed from an else clause.");
  - ☒ b. else echo "Displayed from an else clause.";
  - c. else "echo 'Displayed from an else clause.'";
  - d. else; echo "Displayed from an else clause.";
10. The switch statement controls program flow by executing a specific set of statements, depending on \_\_\_\_\_.  
a. the result of an if...else statement  
b. the version of PHP being executed  
c. whether an if statement executes within a function  
☒ d. the value returned by a conditional expression
11. Decision-making structures cannot be nested. True or False?  
*True*
12. When the value returned by a switch statement expression does not match a case label, the statements within the \_\_\_\_\_ label execute.  
a. exception  
☒ b. else  
c. error  
d. default
13. You can exit a switch statement using a(n) \_\_\_\_\_ statement.  
☒ a. break  
b. end  
c. quit  
d. complete
14. Each repetition of a looping statement is called a(n) \_\_\_\_\_.  
a. recurrence  
☒ b. iteration  
c. duplication  
d. reexecution

15. Which of the following is the correct syntax for a `while` statement?

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

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

c. `while ($i <= 5);  
    $echo "<p>$i</p>";  
    ++$i;`

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

16. Counter variables \_\_\_\_\_. (Choose all that apply.)

a. can only be incremented

b. can only be decremented

☒ c. can be incremented or decremented

d. do not change

17. Explain how an infinite loop is caused.

A conditional statement is never met

18. Which of the following is the correct syntax for a `for` statement?

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

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

c. `for {  
    echo "Displayed from a for statement.";  
} while ($i = 0; $i < 10; ++$i)`

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

19. When is a for statement initialization expression executed?

- ☒ a. when the for statement begins executing
- b. with each repetition of the for statement
- c. when the counter variable increments
- d. when the for statement ends

20. The foreach statement can only be used with arrays. True or False?

True

