Feedback - Week 2 Quiz

Help

Thank you. Your submission for this quiz was received.

You submitted this quiz on **Tue 10 Jun 2014 3:18 PM CEST**. You got a score of **10.00** out of **10.00**.

Question 1

Suppose I define the following function in R

```
cube <- function(x, n) {
     x^3
}</pre>
```

What is the result of running

cube(3)

in R after defining this function?

| Your Answer | | Score | Explanation |
|--|---|--------|---|
| The number 27 is returned | ~ | 1.00 | Because 'n' is not evaluated, it is not needed even though it is a formal argument. |
| A warning is given with no value returned. | | | |
| On An error is returned because 'n' is not specified in the call to 'cube' | | | |
| The users is prompted to specify the value of 'n'. | | | |
| Total | | 1.00 / | |
| | | 1.00 | |

Question 2

The following code will produce a warning in R.

```
x <- 1:10
if(x > 5) {
            x <- 0
}</pre>
```

Why?

| Your Answer | | Score | Explanation |
|--|----------|--------|-------------|
| The expression uses curly braces. | | | |
| 'x' is a vector of length 10 and 'if' can only test a single logical statement. | ~ | 1.00 | |
| There are no elements in 'x' that are greater than 5 | | | |
| The syntax of this R expression is incorrect. | | | |
| You cannot set 'x' to be 0 because 'x' is a vector and 0 is a scalar. | | | |
| Total | | 1.00 / | |
| | | 1.00 | |

Question 3

Consider the following function

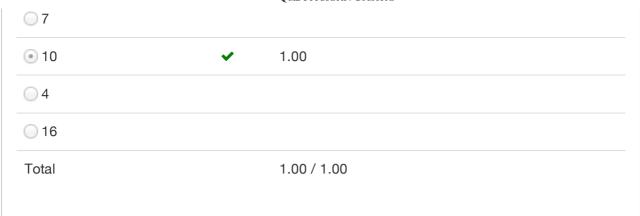
```
f <- function(x) {
          g <- function(y) {
                y + z
          }
          z <- 4
          x + g(x)
}</pre>
```

If I then run in R

```
z <- 10
f(3)
```

What value is returned?

| Your Answer Score Explanation | |
|-------------------------------|--|
|-------------------------------|--|



Question 4

Consider the following expression:

```
x <- 5
y <- if(x < 3) {
          NA
} else {
          10
}</pre>
```

What is the value of 'y' after evaluating this expression?

| Score | Explanation |
|-------------|-------------|
| | |
| | |
| 1.00 | |
| | |
| 1.00 / 1.00 | |
| | 1.00 |

Question 5

Consider the following R function

```
h <- function(x, y = NULL, d = 3L) {
    z <- cbind(x, d)
    if(!is.null(y))
        z <- z + y
    else</pre>
```

Which symbol in the above function is a free variable?

| Your Answer | | Score | Explanation |
|-----------------------|----------|-------------|-------------|
| ● f | ~ | 1.00 | |
| ○ z | | | |
| O d | | | |
| ○ L | | | |
| g | | | |
| Total | | 1.00 / 1.00 | |
| | | | |

Question 6

What is an environment in R?

| Your Answer | | Score | Explanation |
|---|---|-------------|-------------|
| a collection of symbol/value pairs | ~ | 1.00 | |
| a special type of function | | | |
| an R package that only contains data | | | |
| a list whose elements are all functions | | | |
| Total | | 1.00 / 1.00 | |
| | | | |

Question 7

The R language uses what type of scoping rule for resolving free variables?

| Your Answer | | Score | Explanation |
|-----------------------------------|---|-------------|-------------|
| global scoping | | | |
| ocompilation scoping | | | |
| lexical scoping | ~ | 1.00 | |
| O dynamic scoping | | | |
| Total | | 1.00 / 1.00 | |
| | | | |

| Question 8 | | | |
|--|----------|----------------|-------------|
| How are free variables in R functions resolved? | | | |
| Your Answer | | Score | Explanation |
| The values of free variables are searched for in the global environment | | | |
| The values of free variables are searched for in the working directory | | | |
| The values of free variables are searched for in the environment in which the function was defined | ~ | 1.00 | |
| The values of free variables are searched for in the environment in which the function was called | | | |
| Total | | 1.00 / 1.00 | |

| All objects can be stored on the disk | |
|---------------------------------------|-------------|
| Total | 1.00 / 1.00 |
| | |

| Question 10 | | |
|---|---------------|-------------|
| n R, what is the parent frame? | | |
| Your Answer | Score | Explanation |
| It is the environment in which a function was defined | | |
| It is the package search list | | |
| It is always the global environment | | |
| It is the environment in which a function was called | ✓ 1.00 | |
| Total | 1.00 / 1.00 |) |