

Week 4 Quiz

[Help](#)

The **hard deadline** for this quiz is **Fri 7 Feb 2014 8:59 PM PST**.

☐ In accordance with the Coursera Honor Code, I (Kathleen Grace Kennedy) certify that the answers here are my own work.

Question 1

What is the difference between the `colorRamp()` and the `colorRampPalette()` functions?

- ☐ `colorRamp()` returns a function that accepts inputs between 0 and 1; `colorRampPalette()` returns a character vector of color names
- ☒ `colorRamp()` returns a function that accepts inputs between 0 and 1; `colorRampPalette()` returns a function that accepts integer inputs
- ☐ `colorRamp()` and `colorRampPalette()` both return character vectors of color names but `colorRamp()` encodes the colors in hexadecimal while `colorRampPalette()` does not
- ☐ `colorRamp()` is an alias for the `colorRampPalette()` function; they are the same

Question 2

What function can be used to convert a color specified using decimal values of red, green, and blue into a character string using hexadecimal values?

- ☒ `rgb()`
- ☐ `colorRamp()`
- ☐ `topo.colors()`
- ☐ `colors()`

Question 3

Which string would match the following literal expression

powder

- ☐ The chocolate tastes better in powdEr form
- ☐ "Powder" is a movie from 1995
- ☐ I believe his twitter name is "Powder"
- ☒ load the gunpowder

Question 4

What text would the expression

^[Hh]

match?

- ☐ Any text that begins with an upper-case "h"
- ☐ Any text with a lower- or upper-case "h" in it
- ☐ Any text that ends with a lower- or upper-case "h"
- ☒ Any text that begins with a lower- or upper-case "h"

Question 5

Which of the following lines of text match the following expression?

^([a-z]+) +\1 +[a-z]+ [0-9]

- ☐ bye bye from up high
- ☐ going up and up and up
- ☐ heading, heading by 9
- ☒ night night at 8

Question 6

What does the 'grep()' function do when called with its default arguments?

- ☒ returns the indices for strings in a character vector that match a given regular expression
- ☐ returns a logical vector indicating which strings in a character vector match a given regular expression
- ☐ returns an integer vector containing the length of the match for each string in a character vector
- ☐ returns the strings in a character vector that match a given regular expression

Question 7

Consider the following regular expression

```
^s(.*)r
```

and the string

```
she likes rum raisin after running hard
```

How many characters long is the regular expression match in this string?

- ☐ 15
- ☐ 38
- ☐ none; the regular expression doesn't match
- ☒ 11

Question 8

In the R system of classes and methods, what is a generic function?

- ☒ a function that identifies the class of its input and calls an appropriate method on the input
- ☐ a function that operates on a specific class of object
- ☐ any function that operates on a non-atomic object

- ☐ a function that operates on an object that has no class

Question 9

What function is used to obtain the function body for an S4 method function?

- ☒ getMethod()
☐ getClass()
☐ showMethods()
☐ getS3method()

Question 10

What does the 'setOldClass()' function do?

- ☐ registers an S4 class so that S3 generic functions may be called on objects of that class.
☒ registers an S3 class as a formally defined class so that objects of this class can be used with S4 generic functions
☐ it is the function that dispatches methods on S3 class objects
☐ removes an S3 class so that only S3 generic functions may be called on objects of that class

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