

## Feedback — Week 2 Quiz

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You submitted this quiz on **Mon 11 May 2015 8:04 AM PDT**. You got a score of **10.00** out of **10.00**.

### Question 1

Under the lattice graphics system, what do the primary plotting functions like `xyplot()` and `bwplot()` return?

Your Answer	Score	Explanation
<input type="radio"/> an object of class "plot"		
<input checked="" type="radio"/> an object of class "trellis"	✓ 1.00	
<input type="radio"/> an object of class "lattice"		
<input type="radio"/> nothing; only a plot is made		
Total	1.00 / 1.00	

### Question 2

What is produced by the following code?

```
library(nlme)
library(lattice)
xyplot(weight ~ Time | Diet, BodyWeight)
```

Your Answer	Score	Explanation
<input type="radio"/> A set of 16 panels showing the relationship between weight and time for each rat.		
<input type="radio"/> A set of 3 panels showing the relationship between weight and time for each rat.		

☐ A set of 11 panels showing the relationship between weight and diet for each time.

☒ A set of 3 panels showing the relationship between weight and time for each diet. ✓ 1.00

Total 1.00 / 1.00

## Question 3

Annotation of plots in any plotting system involves adding points, lines, or text to the plot, in addition to customizing axis labels or adding titles. Different plotting systems have different sets of functions for annotating plots in this way. Which of the following functions can be used to annotate the panels in a multi-panel lattice plot?

Your Answer	Score	Explanation
<input type="radio"/> text()		
<input checked="" type="radio"/> lpoints()	<span style="color: green;">✓</span> 1.00	
<input type="radio"/> lines()		
<input type="radio"/> points()		
Total	1.00 / 1.00	

## Question 4

The following code does NOT result in a plot appearing on the screen device.

```
library(lattice)
library(datasets)
data(airquality)
p <- xyplot(Ozone ~ Wind | factor(Month), data = airquality)
```

Which of the following is an explanation for why no plot appears?

Your Answer	Score	Explanation
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<input type="radio"/> The variables being plotted are not found in that dataset.		
<input type="radio"/> There is a syntax error in the call to xyplot().		
<input type="radio"/> The xyplot() function, by default, sends plots to the PDF device.		
<input checked="" type="radio"/> The object 'p' has not yet been printed with the appropriate print method.	✓	1.00
Total		1.00 / 1.00

## Question 5

In the lattice system, which of the following functions can be used to finely control the appearance of all lattice plots?

Your Answer	Score	Explanation
<input type="radio"/> par()		
<input type="radio"/> print.trellis()		
<input type="radio"/> splom()		
<input checked="" type="radio"/> trellis.par.set()	✓ 1.00	
Total	1.00 / 1.00	

## Question 6

What is ggplot2 an implementation of?

Your Answer	Score	Explanation
<input type="radio"/> the S language originally developed by Bell Labs		
<input type="radio"/> the base plotting system in R		
<input checked="" type="radio"/> the Grammar of Graphics developed by Leland Wilkinson	✓ 1.00	
<input type="radio"/> a 3D visualization system		

Total

1.00 / 1.00

## Question 7

Load the `airquality` dataset form the datasets package in R.

```
library(datasets)
data(airquality)
```

I am interested in examining how the relationship between ozone and wind speed varies across each month. What would be the appropriate code to visualize that using ggplot2?

Your Answer	Score	Explanation
<input type="radio"/> <code>qplot(Wind, Ozone, data = airquality)</code>		
<input type="radio"/> <code>qplot(Wind, Ozone, data = airquality, facets = . ~ factor(Month))</code>		
<input checked="" type="radio"/> <code>airquality = transform(airquality, Month = factor(Month))</code> <code>qplot(Wind, Ozone, data = airquality, facets = . ~ Month)</code>	✓ 1.00	
<input type="radio"/> <code>qplot(Wind, Ozone, data = airquality, geom = "smooth")</code>		
Total	1.00 / 1.00	

## Question 8

What is a **geom** in the ggplot2 system?

Your Answer	Score	Explanation
<input type="radio"/> a method for mapping data to attributes like color and size		
<input type="radio"/> a statistical transformation		
<input checked="" type="radio"/> a plotting object like point, line, or other shape	✓ 1.00	

- ☐ a method for making conditioning plots

Total

1.00 / 1.00

## Question 9

When I run the following code I get an error:

```
library(ggplot2)
g <- ggplot(movies, aes(votes, rating))
print(g)
```

I was expecting a scatterplot of 'votes' and 'rating' to appear. What's the problem?

Your Answer	Score	Explanation
<input type="radio"/> The object 'g' does not have a print method.		
<input type="radio"/> The dataset is too large and hence cannot be plotted to the screen.		
<input checked="" type="radio"/> ggplot does not yet know what type of layer to add to the plot.	✓ 1.00	
<input type="radio"/> There is a syntax error in the call to ggplot.		
Total	1.00 / 1.00	

## Question 10

The following code creates a scatterplot of 'votes' and 'rating' from the movies dataset in the ggplot2 package. After loading the ggplot2 package with the library() function, I can run

```
qplot(votes, rating, data = movies)
```

How can I modify the the code above to add a smoother to the scatterplot?

Your Answer	Score	Explanation
<input checked="" type="radio"/> <code>qplot(votes, rating, data = movies) + geom_smooth()</code>	✓ 1.00	
<input type="radio"/> <code>qplot(votes, rating, data = movies, panel = panel.loess)</code>		

- ☐ `qplot(votes, rating, data = movies, smooth = "loess")`
- ☐ `qplot(votes, rating, data = movies) + stats_smooth("loess")`

Total

1.00 / 1.00

