Week 2 Quiz

Back to Week 2

9/10 points earned
(90%)

Quiz passed!

1 / 1
points

1.
Under the lattice graphics system, what do the primary plotting functions like xyplot() and bwplot() return?

- an object of class "lattice"
- nothing; only a plot is made
- an object of class "trellis"

Correct Response

- an object of class "plot"

1 / 1
points

2.
What is produced by the following code?

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

- 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 rat.
- A set of 16 panels showing the relationship between weight and time for each rat.
- A set of 3 panels showing the relationship between weight and time for each diet.

Correct Response

0 / 1 points

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?

- lpoints()
- points()
- axis()
- text()
- lines()

Incorrect Response

1 / 1 points

4.
The following code does NOT result in a plot appearing on the screen device.

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

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

- [x] The object 'p' has not yet been printed with the appropriate print method.

Correct Response

- [ ] There is a syntax error in the call to xyplot().
- [ ] The xyplot() function, by default, sends plots to the PDF device.
- [ ] The variables being plotted are not found in that dataset.

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1 / 1 points

5.
In the lattice system, which of the following functions can be used to finely control the appearance of all lattice plots?

- [ ] par()
- [ ] splom()
- [x] trellis.par.set()

Correct Response

- [ ] print.trellis()

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1 / 1
points

6.
What is ggplot2 an implementation of?

- a 3D visualization system
- the base plotting system in R
- the Grammar of Graphics developed by Leland Wilkinson

Correct Response

- the S language originally developed by Bell Labs

1 / 1 points

7.

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

```
1  library(datasets)
2  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?

```
1  qplot(Wind, Ozone, data = airquality, facets = . ~ factor(Month))
```

```
1  airquality = transform(airquality, Month = factor(Month))
2  qplot(Wind, Ozone, data = airquality, facets = . ~ Month)
```

Correct Response

```
1  qplot(Wind, Ozone, data = airquality, geom = "smooth")
```

```
1  qplot(Wind, Ozone, data = airquality)
```

1 / 1 points

8.
What is a **geom** in the ggplot2 system?

- [x] a plotting object like point, line, or other shape

Correct Response

- [ ] a method for making conditioning plots
- [ ] a method for mapping data to attributes like color and size
- [ ] a statistical transformation

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1 / 1 points

9.
When I run the following code I get an error:

```
1  library(ggplot2)
2  library(ggplot2movies)
3  g <- ggplot(movies, aes(votes, rating))
4  print(g)
```

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

- [ ] The dataset is too large and hence cannot be plotted to the screen.
- [x] ggplot does not yet know what type of layer to add to the plot.

Correct Response

- [ ] There is a syntax error in the call to ggplot.
- [ ] The object 'g' does not have a print method.

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1 / 1 points

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?

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

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

Correct Response

```
qplot(votes, rating, data = movies, smooth = "loess")
```

```
qplot(votes, rating, data = movies, panel = panel.loess)
```