

Pop Quiz!

NAME _____

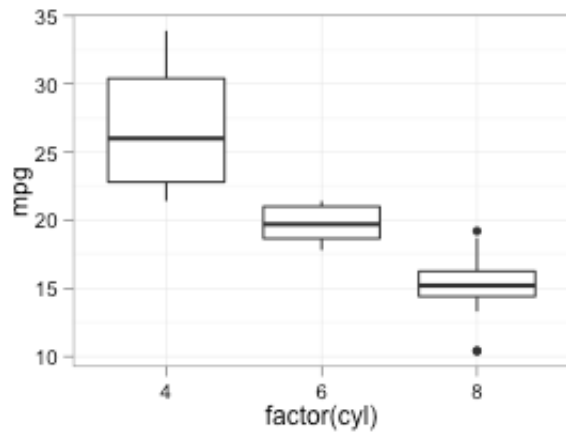
Welcome to *An Introduction to Computational Data Analysis for Biology*. We start today with a pop quiz! Fun, right? The point of this quiz isn't to get a grade, but to let me know what you know and are comfortable with. Not answering questions is just fine. Some questions don't have correct answers at all. Do your best, as it will make the rest of the semester a better experience for you.

(Also, note, for drawings, you don't have to be super-precise.)

1. Draw a normal distribution.
2. Draw a poisson distribution. How is it different from a normal distribution?
3. What is the first thing *you* do when you design a new experiment. Just the first.
4. A scientist takes samples of twenty sea urchins before and after a drop in sea water pH at a single along the Oregon coast. She finds that a number of genes involved in the test calcification process are being expressed at far higher levels after the pH event than before. Also, quarter of her sample has been infected with a parasite that bores through weak urchin tests. She concludes that ocean acidification will be a

problem for urchins in the future. Is she right? Why or why not?

5. Label the different parts of one of the boxplots on this graph.



6. What cloud storage or backup services do you use?

7. What is your favorite programming language and why?