Question 1 of 9: Data set 1 represents a set of distinct studies conducted on small populations of students--you might see these types of results if you administered a survey to the students of just one classroom teacher.
Within data set 1, how many correlations are statistically significant (according to the customary p<0.05 definition) if you do not apply any sort of post-hoc control?

10

Question 2 of 9: If you apply a post-hoc Bonferroni control to these results, how many correlations remain statistically significant?

5

Question 3 of 9: If you apply Benjamini & Hochberg's FDR Correction to these results, how many correlations remain statistically significant?

9

Question 4 of 9: What is the correlation with the lowest p-value that comes up significant for B&H but not for Bonferroni?

- A) 0.245614914
- B) 0.237749612
- C) 0.288032855

Question 5 of 9: Data set 2 represents a larger set of correlations within data from a larger population of students--for example, the entire population of students using a medium-sized online learning environment. Within data set 2, how many of the 1,112 correlations are NOT statistically significant (according to the customary p<0.05 definition) if you do not apply any sort of post-hoc control?

19

Question 6 of 9: If you apply a post-hoc Bonferroni control to these results, how many correlations are now NOT statistically significant?

28

Question 7 of 9: If you apply Benjamini & Hochberg's FDR Correction to these results, how many correlations are now NOT statistically significant?

19

Question 8 of 9: What is the lowest correlation that is still statistically significant, according to Bonferroni's test?

- A) 0.26227631
- B) 0.1976639

C) 0.05965262

D) 0.01609085

Question 9 of 9: Now do you see why Professor Baker says that statistical significance doesn't matter much for really big data sets? (and this is NOT a big data set by reckoning in other fields)

A) Yes -- Bonferroni is ridiculously conservative with 1,112 tests, and yet correlations that are absurdly small still come up statistically significant.

B) No. I think the answer to Question 9 is a fine correlation, perfectly likely to represent a large effect size.