Assignment 1 Solutions

13-16, page 10.

25-36, page 11.

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17-20, 24-25, page 25.

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page 10:

13: False. A sample of convenience is often biased, but can be useful when it is reasonable to believe that there is no systematic difference between the sample and the population.

14. False. In a cluster sample, a random samples of clusters are taken.

15. True.

16. True.

page 11.

25. Stratified sampling.

26. Sample of convenience.

27. Cluster.

28. Systematic.

29. Voluntary response.

30. Cluster.

31. Sample of convenience.

32. Simple random sample.

33. Stratified.

34. Cluster.

35. Simple random sample.

36. Stratified.

page 15. 5-14.

5. variables.

6. qualitative/categorical.

7. Quantitative.

8. nominal, ordinal.

9. discrete

10. Continuous.

11. False.

12. True.

13. True.

14. True.

page 25. 17-20, 24-25.

17. a. Randomized experiment. b. yes.

18. a. Observational study. b. no.

19. a. Randomized experiment. b.Yes.

20. a. Four types of fertilizer.

b. Randomized experiment.

c. Yes. Because in this experiment, each plot is treated identically except for receiving a different type of fertilizer, so we can conclude the difference in yield is due to difference in fertilizer.

24. Could be due to confounding.

25. a. False. b. True.

page 29. 6-8.

6. False. 7. True. 8. False.