

Homework Solutions

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Review Exercise 60

- (a) It is an experiment. The teachers controlled the explanatory variable (teaching method).
- (b) The explanatory variable is the teaching method. Another possible explanatory variable is the teacher himself.
- (c) Yes, the teacher himself. Any differences in outcome could be a result of the teacher, not the teaching method.
- (d) Apparently not. The teachers simply choose which students they would teach. There was no mention of randomization.
- (e)
 - H_0 : The average test scores of the two classes are the same.
 - H_0 : The average test scores of the two classes are not the same.
- (f) It must be greater than 0.10.
- (g) Possibly. If the p -value was between 0.10 and 0.15, then the results would be significant at the 15% level. On the other hand, if the p -value was greater than 0.15, then they would not be significant even at the 15% level.