

## Answers

### Article: Competitiveness and Culture

### Topics: Inferential Test: Two-way ANOVA; F test

#### Practice Items:

Assume the subscales Enjoyment of Competition and Contentiousness can be considered continuous variables.

1. What inferential analysis would you do to examine the interaction between gender and culture for each of the subscales?

2X3 Two way ANOVA.

2. What F tests would you examine from the analysis you selected for #1.

For each subscale:

F test for main effect related to gender  
F test for main effect related to culture  
F test for the interaction between gender and culture

3. To keep the experiment-wise alpha at .01, what alpha should your p value(s) be compared to?

$.01/6 = .002$

4. What is the effect size when examining differences as a function of culture for the contentiousness scale?

Effect size =  $.6/3.8 = .16$

5. Determine the power that would be achieved for the F test associated with question 4.

.51