

**Chapter 20 Homework**

**Name:** \_\_\_\_\_

1. What does between group variability reflect? Be specific. What things can increase/decrease between group variability?
  
  
  
  
  
  
  
  
  
  
2. What does within group variability reflect? Be specific. What things can increase/decrease within group variability?
  
  
  
  
  
  
  
  
  
  
3. State the critical value of  $F$ -Value for a oneway ANOVA under each of the following conditions. Note the the  $n$  values are the number of subjects in each group (they are not  $n_i$ ):

3a.  $k = 3, n = 7, \alpha = .01$

3e.  $k = 5, n = 10, \alpha = .01$

3b.  $k = 4, n = 5, \alpha = .05$

3f.  $k = 6, n = 4, \alpha = .05$

3c.  $k = 3, n = 10, \alpha = .01$

3g.  $k = 2, n = 12, \alpha = .05$

3d.  $k = 5, n = 15, \alpha = .01$

3h.  $k = 4, n = 5, \alpha = .05$

4. State the null and alternate hypotheses for a oneway ANOVA with 5 levels of the independent variable:

$H_0:$

$H_1:$