Stat 185 - In class problems

Wednesday, November 15

Rock	Paper	Scissors
43	21	35

Table 1: Rock - paper - scissors

1. Suppose you ask two friends to play rock-paper-scissors and count the times each option is played. Table 1 above summarizes the data. Use a one-way χ^2-test to evaluate whether these data support the hypothesis that players choose between these three options randomly, or if certain options are favored above others.

2. Data on support for Issue 42 is shown in table 2 below. Suppose I run a `chisq.test` command on this table and generate the following output:

   ```
   Pearson's Chi-squared test
   X-squared = 4.3576, df = 4, p-value = 0.3598
   ```

   (a) Draw a picture illustrating how `X-squared` and `p-value` fit together.

   (b) What hypothesis statement is associated with this test?

   (c) How should you interpret the p-value?

Answer

	Party Affiliation		
	Republican	Democrat	Independent
Support	264	299	351
Don't support	38	55	77
Don't know	16	15	22
Total	318	369	450

Table 2: Support by party