

GOB: review summary chart, discuss when/how to analyze residuals, Mr. Iams checks assignment 36 while you: Calculate the standardized residuals for A36 problems and describe (write down) what they reveal about the data.

2)

Origin	Student	Staff
American		
European		
Asian		

6)

Infection	Cranberry	Lacto-bacillus	Neither
Yes			
No			

Example 1: A group of randomly selected students from a local high school has the characteristics shown in the table. Is handedness related to eye-color?

Eye Color	Left	Right
Brown	6	36
Blue	7	26
Green	2	21
Other	4	12

The natural question to ask of these data is whether the chance of being right handed is of eye color. Recall that for events A and B to be independent, $P(A \cap B) = P(A)P(B)$. Here, this means the probability that a randomly selected student is right handed change when we learn the student's eye color. The rules for independent events are much too precise and absolute to work well with real data. We need to assess whether the observed differences in distributions are greater than reasonably allows.

If handedness is independent of eye color, we'd expect the proportion of right handed people to be the same for the various eye colors. This sounds a lot like mechanics of the calculation are identical. However here we are asking: "Are the than "Are the ?" So in this instance we call it a to frame our conclusions correctly. Remember, a failure of independence between two categorical variables does not show a relationship between them, nor should we say that one variable

. In fact, the ?" rather and are careful on the other.
