

Quiz 13

True/False - No explanation needed. (1pt for correct, 0pt - no answer, -1pt - incorrect)

1. If two samples that were treated identically show a difference that is statistically significant, it is a Type II error. True/False
2. The independent-samples t-test cannot be used when samples differ in size. True/False

Problems - Need justification. No justification means **zero**!

1. (10pts) We toss two coins 100 times and record the outcomes: 30 times of two H's, 40 times of one H one T, 30 times of two T's.
 - (a) Calculate the expected frequencies, given the null hypothesis H_0 that both coins are fair.
 - (b) Take the significance level $\alpha = 0.1$, perform the χ^2 test and draw a conclusion.