Hi [@Gleb Mikhaylov](https://yandex-students.slack.com/team/UUMQAGFHC) I have a question about when you create the data frame t. You made the table based off of 700/70 and 300/40, then you take samples of this and find the probability. However, I feel like this is taking a sample of a sample. The first sample is that the 1000 row data frame t has 70 1s in group A and 40 1s in group B, then you are taking samples of this to calculate the probability of the 0.10 and 0.13 occurring. This doesn't make sense to me because you are using the first sample to take samples to find the probability of finding the first sample's probability. Also, in the code below  
a = t.sample(700,replace=True)['sale'].mean()  
b = t.sample(300,replace=True)['sale'].mean()For variable A it is taking 700 samples from the entire t frame (includes groups A and B). Same for variable B. It doesn't differentiate the groups and thus when you take a sample of 700 it is taking from both groups and not just from the group without a discount. So to me, it doesn't make sense to compare the abs value of (a-b) to the abs difference of 0.10 and 0.13. But maybe I am understanding it incorrectly? I am a bit confused. Thank you (

@answer: Hi! The core idea of bootstrap is taking samples from a sample.  Now about this particular case. We have the original sample which we got during the experiment with our landing page: we ran the experiment for one month and got 1000 observations. And we also divided this observation into two groups, A and B -- in A we demonstrated regular landing, in B a new landing. So that’s our experiment design. And the result of the experiment is 1000 observations with a given proportion for A and B: for A it is 70 sales out of 700, for B 40 sales out of 300. Now we want to understand how likely to get this result just by pure chance. Or what the probability of getting this difference in conversion (.1 vs .13) if two groups are absolutely the same, or as they say, groups came from same distribution. And now we want to test the idea that group A and B are the same, e.g. our new landing has no effect on customers. Or for example, what if we just divided our 1000 customers into two random groups without changing the landing page, so both groups saw the same message -- what’s the probability of getting this result: the difference greater than 0.03? Now, how can we simulate that two groups are the same? Pool them together. And now we treat our 1000 observations as one big group. Next, we start to take random samples of sizes of our original groups from this pooled sample, calculate the conversion and compare it to the original difference. And sample size here (700, 300) is the key: the smaller sample size the bigger chance of getting a big difference just by chance. Smaller sample size leads to more unstable conversion. In bootstrap samples with replacement from the original sample serve as a population. We can take an infinite number of samples that way and understand how conversion behaves due to different sample sizes.