For Homework #2

Mistakes caused by the incorrect formula





Do a two-sample test for equality of means assuming unequal variances. Calculate the p-value using Excel.

(a-1) Comparison of GPA for randomly chosen college juniors and seniors:





l places. Do not use "quic	edom.)		

(Negative values should be indicated by a minus sign. Round down your d.f. answer to the nearest whole number and other

d.f.	2,814 🔕		
t-calculated	-3.7596		
p-value	0.0001 🔕		
t-critical	-1.9608 😢		





A special bumper was installed on selected vehicles in a large fleet. The dollar cost of body repairs was recorded for all vehicles that were involved in accidents over a 1-year period. Those with the special bumper are the test group and the other vehicles are the control group, shown below. Each "repair incident" is defined as an invoice (which might include more than one separate type of damage).





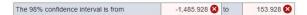


Source: Unpublished study by Thomas W. Lauer and Floyd G. Willoughby.

(a) Construct a 98 percent confidence interval for the true difference of the means assuming equal variances. (Round your final answers to 3 decimal places. Negative values should be indicated by a minus sign.)

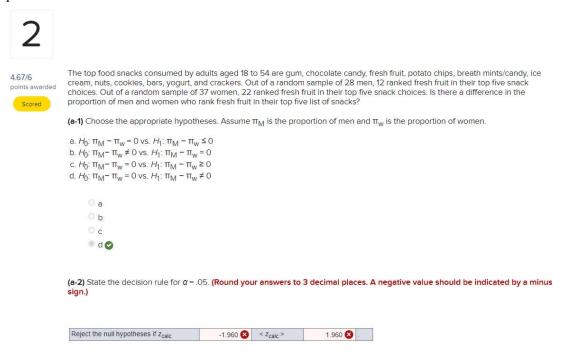


(b) Repeat part (a), using the assumption of unequal variances with Welch's formula for d.f (Round the calculation for Welch's df to the nearest integer. Round your final answers to 3 decimal places. Negative values should be indicated by a minus sign.)

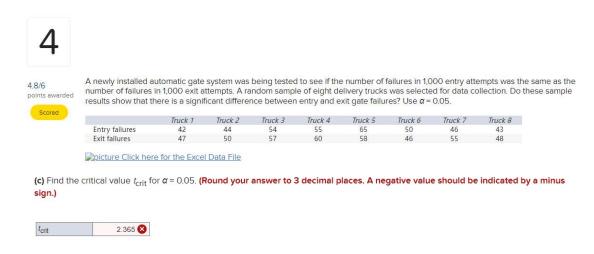


For Quiz #2

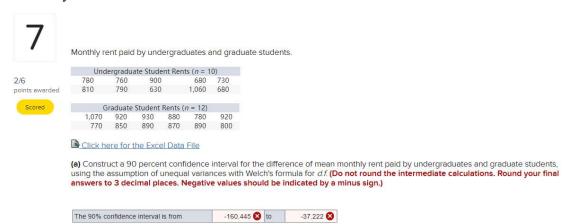
There are two "larger than" so I thought the sequence of the answers are from negative to positive numbers.



My number is the same as answer but I didn't get the score.



Caused by incorrect formula



For Quiz #1

Same number but I didn't get the score.





GreenBeam Limited claims that its compact fluorescent bulbs average no more than 3.68 mg of mercury. A sample of 65 bulbs shows a mean of 3.78 mg of mercury.



(a) State the hypotheses for a right-tailed test, using GreenBeam's claim as the null hypothesis about the mean.

a. H_0 : $\mu \ge 3.68$ mg vs. H_1 : $\mu < 3.68$ mg b. H_0 : $\mu \le 3.68$ mg vs. H_1 : $\mu > 3.68$ mg c. H_0 : $\mu = 3.68$ mg vs. H_1 : $\mu \ne 3.68$ mg o a ® b ⊘

(b) Assuming a known standard deviation of 0.22 mg, calculate the z test statistic to test the manufacturer's claim. (Round your answer to 2 decimal places.)



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