

STU22005 Applied Probability II
Continuous Assessment Sheet 1, Answer Sheet

For each question, fill in the following answers. Please use the 'insert text at cursor' option to add your answers. Save the document with your answers included and upload to Blackboard.

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1.

a. Test statistic value = 4.427.

Critical value = 3.250.

Conclusion We fail to reject H_0 ($\alpha/2 = 0.005$, $t_{9,0.005} = 3.25 \leq 4.427$, two sided test)

and accept H_a as $T_{obs} \geq t_{v,\alpha/2}$

b. Test statistic value = 1.414.

Critical value = 2.365.

Conclusion We fail to reject H_0 ($\alpha/2 = 0.025$, $t_{7,0.005} \Rightarrow -2.365 < 1.414 < 2.365$, two sided test)

c. Test statistic value = 2.5.

Critical value = 1.318.

Conclusion We reject H_0 ($\alpha = 0.1$, $t_{24,0.1} = 1.318 \leq 2.5$, upper-railed test)

2.

a. Probability = 0.4401

b. Probability = 0.0238

c. Probability = 0.436