Bonus Tests
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If the data is in the critical region we...

A. Accept $H_0$
B. Reject $H_0$
C. It depends on the test
D. I don’t know
Saying that a test is of size 5% means that...

A. The probability to accept $H_0$ when it does not hold is $\leq 0.05$

B. The probability to reject $H_0$ when it holds is $\leq 0.05$

C. Both

D. I don’t know
If the $p$-value of a test is small, we

A. Accept $H_0$
B. Reject $H_0$
C. I depends on the test
D. I don’t know
We have a collection of random variables $X_i, Y_i$ which correspond to non paired simulation results with configuration 1 or 2. How can you test whether the configuration plays a role or not?

A. With a Wilcoxon Rank Sum test
B. With an ANOVA test
C. With either
D. With none
E. I don’t know
We test whether a distribution is gaussian using a Kolmogorov-Smirnov test against the fitted distribution. We obtain a $p$-value

A. The true $p$-value is smaller
B. We have the true $p$-value
C. The true $p$-value is larger
D. It depends on the data
E. I don’t know
We have two data sets $X_i$ and $Y_j$ believed to be iid and from one exponential distribution each. We test whether they come from the same distribution and make a likelihood ratio test. The log likelihood ratio statistic is $lrs$. The p-value is...

\[ A. \ p \approx 1 - \chi_1^2(2lrs) \]
\[ B. \ p \approx 1 - \chi_2^2(2lrs) \]
\[ C. \ p \approx 1 - F(2lrs) \text{ where } F \text{ is the CDF of the standard exponential distribution} \]
\[ D. \ p \approx 1 - F(2lrs) \text{ where } F \text{ is the CDF of the standard Laplace distribution} \]
\[ E. \ I \text{ don’t know} \]