Bonus
Tests

Jean-Yves Le Boudec
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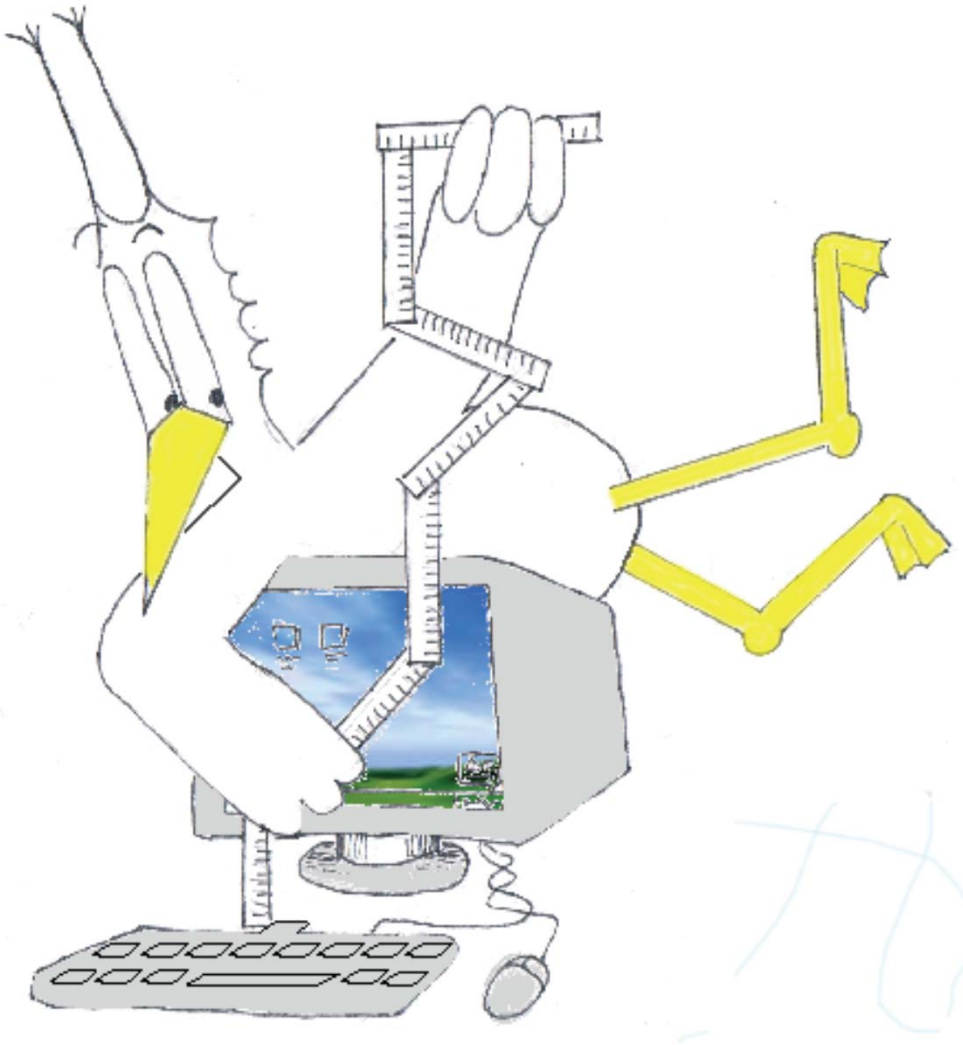
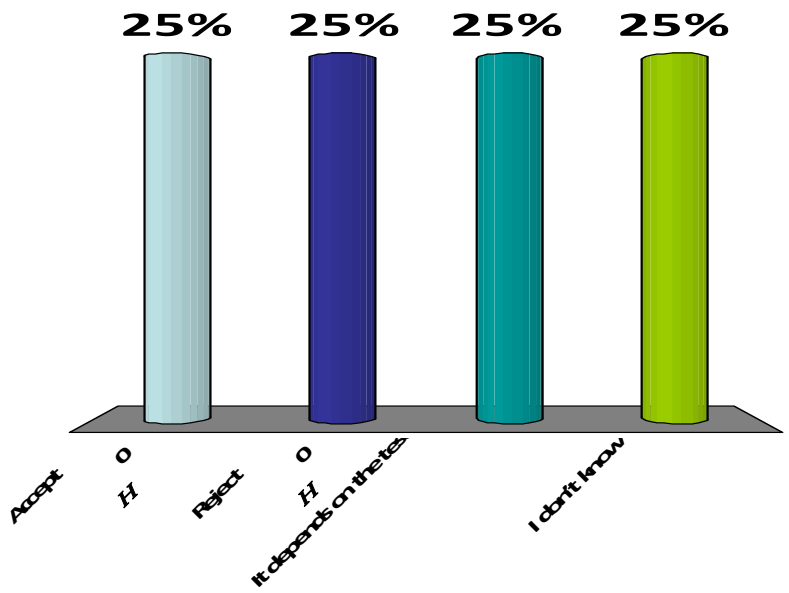


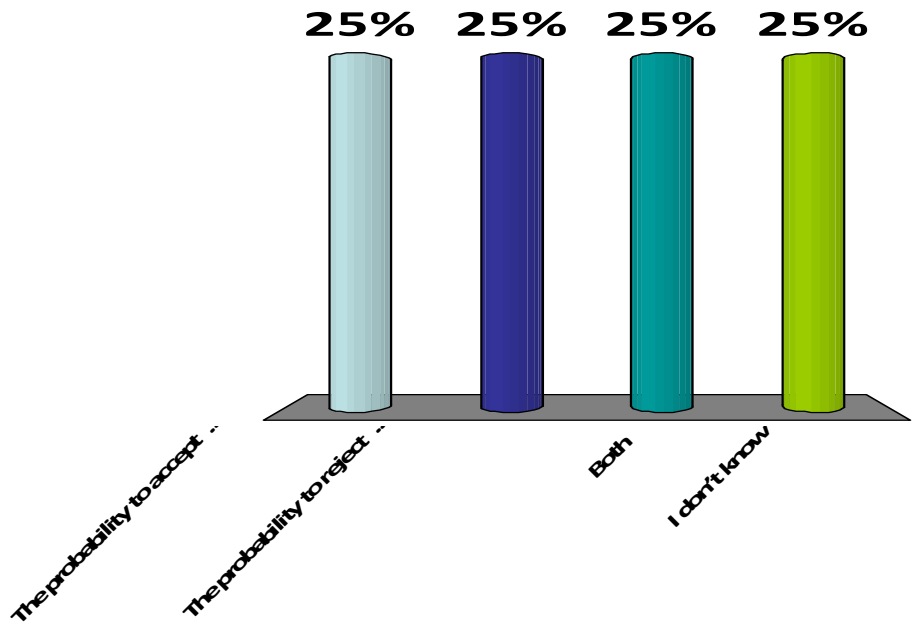
If the data is in the critical region we...

A. Accept H_0
B. Reject H_0
C. It depends on the test
D. I don't know



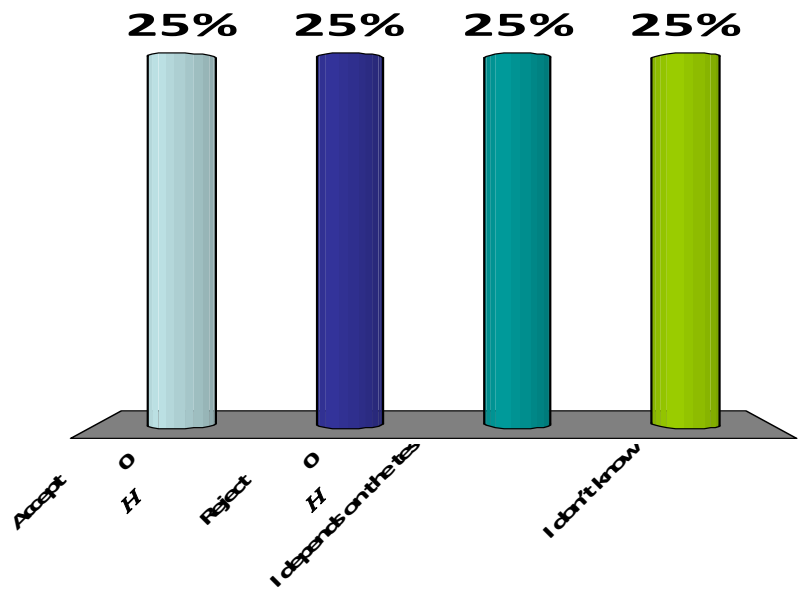
Saying that a test is of size 5% means that…

A. The probability to accept H_0 when it does not hold is ≤ 0.05
B. The probability to reject H_0 when it holds is ≤ 0.05
C. Both
D. I don't know



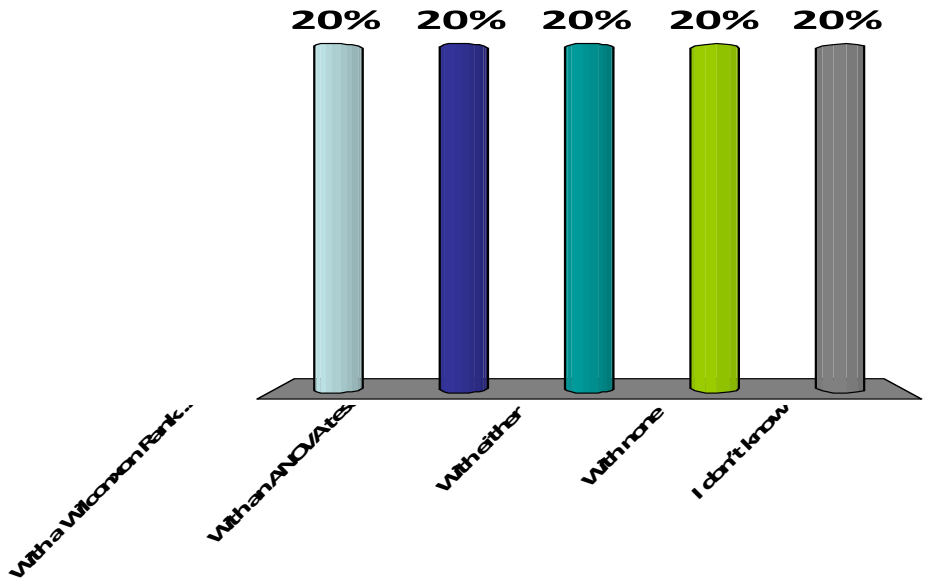
A. Accept H_0
B. Reject H_0
C. I depends on the test
D. I don't know

If the p –value of a test is small we…



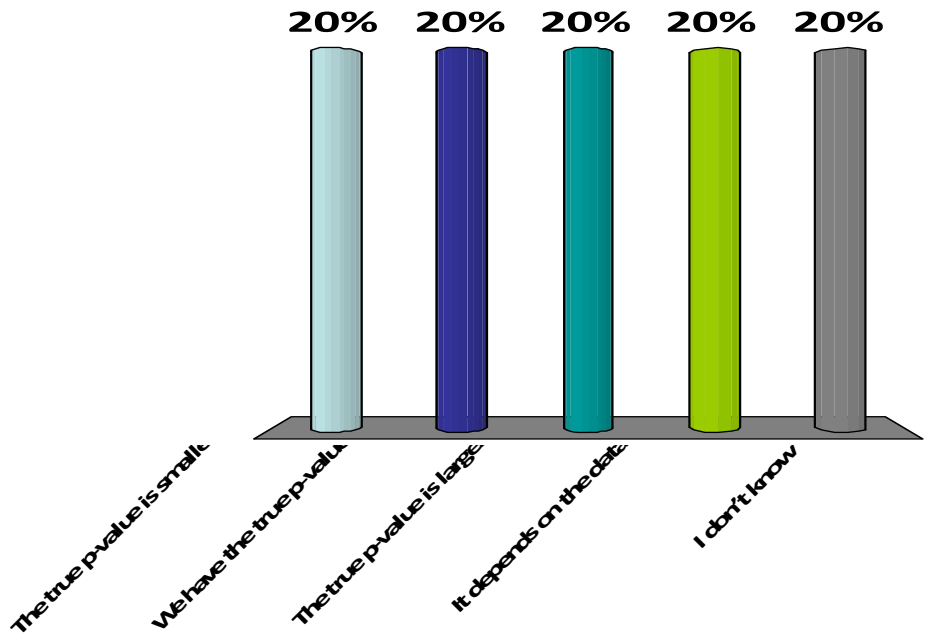
We have a collection of random variables X_i, Y_i which correspond to non paired simulation results with configuration 1 or 2. How can you test whether the configuration plays a role or not ?

A. With a Wilconxon 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. $p \approx 1 - \chi_1^2(2\ell rs)$

B. $p \approx 1 - \chi_2^2(2\ell rs)$

C. $p \approx 1 - F\ (2\ell rs)$ where F is the CDF of the standard exponential distribution

D. $p \approx 1 - F\ (2\ell rs)$ where F is the CDF of the standard Laplace distribution

E. I don't know