

Q-QUIZ FEBRUARY 2018 - ANSWERS

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Statistical tests based on subgroup results help you find out whether an assumption about your production is right. They answer questions as to whether two batches are equal with respect to a certain characteristic or the variation of a machine improved after maintenance.

Two complementary hypotheses are the heart of these statistical tests. The decision for one of these two hypotheses is based on a test statistic calculated from a subgroup. You compare this test statistic to the critical value and the result leads to the acceptance or rejection of the null hypothesis. The remaining risk of making a wrong decision is specified, too. How well are you acquainted with this subject?

1. The t-test is inappropriate to determine differences in variation.

2. If the p-value is small, the null hypothesis will not be rejected.

3. The “power of a statistical test“ describes the probability of accepting the alternative hypothesis if the alternative hypothesis is true.

4. The Shapiro-Wilk test and the Anderson-Darling test are both normality tests.

5. The alternative hypothesis $\mu_A \neq \mu_B$ is true.