

Q-QUIZ MARCH 2019 - ANSWERS



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Statistical procedures help you gain exactly the required type of information from a huge data pool. Many of these methods are applied in quality assurance on a daily basis.

1. **Simple linear regression** helps you adapt a series of value pairs to a specified function. You may thus find a best fit for the pairs of values consisting of speed and reaction time.
2. The **chi-squared test** determines the significance of the average difference between two series of data. It thus makes the performance of both handball players comparable and distinguishable.

3. You have already learned it at school: **probability calculus**. It helps you to calculate the chance of rolling a six with three rolls.

4. **Gauge R&R (GRR, measurement system analysis)** qualifies measurement processes based on the total variation of all data. You will find out whether the applied method is really suitable to measure the throwing distance.

5. The **two-sample p-test** just needs two samples to determine the significance of the difference between two populations. You can thus calculate the significance of the gender-specific difference when it comes to football.

6. Use **Levene's test** to find out whether the variances of two series of data differ significantly. The coach thus sees significant differences in the 25 best times of six cross-country skiers.

7. Take a sample and the **Shewhart average chart** calculates an average indicating whether the machine is adjusted to the target value.