A Survey on Learning of Probability and Statistics

Key terms	Very well	Fair	Bad	Never learned
Probability	☐	☐	☐	☐
Sample space	☐	☐	☐	☐
Event	☐	☐	☐	☐
Random variable	☐	☐	☐	☐
Probability distribution	☐	☐	☐	☐
Cumulative probability function	☐	☐	☐	☐
Probability density function	☐	☐	☐	☐
Bernoulli distribution	☐	☐	☐	☐
Expectation	☐	☐	☐	☐
Variance	☐	☐	☐	☐
Standard deviation	☐	☐	☐	☐
Moments of a distribution	☐	☐	☐	☐
Skewness	☐	☐	☐	☐
Kurtosis	☐	☐	☐	☐
Joint probability distribution	☐	☐	☐	☐
Marginal probability distribution	☐	☐	☐	☐
Conditional distribution	☐	☐	☐	☐
Conditional expectation	☐	☐	☐	☐
Law of iterated expectation	☐	☐	☐	☐
Independence	☐	☐	☐	☐
Covariance	☐	☐	☐	☐
Correlation	☐	☐	☐	☐
Independence v.s. Uncorrelation	☐	☐	☐	☐
Normal distribution	☐	☐	☐	☐
Standardization of a random variable	☐	☐	☐	☐

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Key terms	Very well	Fair	Bad	Never learned
Multivariate normal distribution	☐	☐	☐	☐
Chi-squared distribution	☐	☐	☐	☐
Student t distribution	☐	☐	☐	☐
Simple random sampling	☐	☐	☐	☐
Population	☐	☐	☐	☐
Independently and identically distributed	☐	☐	☐	☐
Sample mean	☐	☐	☐	☐
Sample variance	☐	☐	☐	☐
Exact distribution	☐	☐	☐	☐
Asymptotic distribution	☐	☐	☐	☐
Law of large number	☐	☐	☐	☐
Convergence in probability	☐	☐	☐	☐
Central limit theorem	☐	☐	☐	☐
Unbiasedness	☐	☐	☐	☐
Consistency	☐	☐	☐	☐
Efficiency	☐	☐	☐	☐
Least squares estimator	☐	☐	☐	☐
Hypothesis test	☐	☐	☐	☐
Two-sided alternative hypothesis	☐	☐	☐	☐
One-sided alternative hypothesis	☐	☐	☐	☐
P-value	☐	☐	☐	☐
T-statistic	☐	☐	☐	☐
Type I error	☐	☐	☐	☐
Type II error	☐	☐	☐	☐
Significance level	☐	☐	☐	☐
Critical value	☐	☐	☐	☐
Confidence interval	☐	☐	☐	☐
Sample covariance	☐	☐	☐	☐
Sample correlation coefficient	☐	☐	☐	☐