

Write as much information as you can for each statement or expression. You might need specific formulas or general ones. There might be alternate ways to compute an expression or alternate ways to express a quantity.

1. Probability mass function (*pmf*).
2. Probability density functions (*pdf*).
3. Cumulative distribution function (*cdf*).
4. The expected value and variance of any discrete random variable.
5. The expected value and variance of any continuous random variable.
6. The mean and variance of a binomial random variable.
7. The mean, variance, *pdf*, and *cdf* of a continuous uniform random variable.
8. The mean, variance, *pdf*, and *cdf* of an exponential random variable.
9. The mean, variance, and *pdf* of a standard normal random variable.
10. The mean, variance, and *pdf* of a normal random variable.

11. The mean and variance of a sample.

12. The mean and variance of the sample mean.

13. The standardization of any random variable.

14. The mean and variance of the standardization of any random variable.

15. The mean, variance, and *pdf* of the standardization of the sample mean.

16. The difference between a *pmf* and a *pdf*.