

# Log-derivative Trick

In this reading, you'll define the log-derivative trick, its applications, and the score function estimator. You'll also describe an overview of reinforcement learning, and proximal policy optimization (PPO) algorithms.

The log-derivative trick is a technique used in machine learning and calculus. It derives the functions' algorithms with respect to its parameters. It can also deal with the likelihood of functions, which provide the probability of random variables. You can also simplify this process for deriving non-logarithmic functions.

You can find more information about the log-derivative trick, reinforcement learning, and PPO algorithm in the below links (To open these links, right click on the link and select **Open in new tab**):

- [Log-derivative tricks](#)
- [Reinforcement learning: An introduction](#)
- [Proximal policy optimization \(PPO\) algorithm](#)