In the 1880s, a French engineer named Leon Thévenin introduced the concept known today as Thévenin’s theorem, which asserts:

A linear circuit can be represented at its output terminals by an equivalent circuit consisting of a series combination of a voltage source $v_{Th}$ and a resistor $R_{Th}$, where $v_{Th}$ is the open-circuit voltage at those terminals (no load) and $R_{Th}$ is the equivalent resistance between the same terminals when all independent sources in the circuit have been deactivated.

There are several methods for obtaining the Thévenin equivalent components, $v_{Th}$ and $R_{Th}$, given a linear circuit. Most introductory circuits textbooks discuss the various methods and their application.

One basic method is as follows:

- The Thévenin voltage $v_{Th}$ is obtained by removing the load $R_L$ (replacing it with an open circuit), and then measuring or computing the open-circuit voltage at the same terminals.
- The short-circuit current is obtained by replacing the load with a short circuit and then measuring or computing the short circuit current flowing through it.

The Thévenin voltage is equal to the open-circuit voltage and Thévenin resistance is equal to the ratio of $v_{oc}$ to $i_{sc}$, where $i_{sc}$ is the short-circuit current between the output terminals.