Exercise.

A network service is based on a parallel redundant system with two devices.
Failure times of both devices can be modeled by independent and exponentially distributed random variables with mean $1/\lambda$. Repair times can be modeled by independent and exponentially distributed random variables with mean $1/\mu$. The state of the system is DOWN when both devices are failed.
In order to evaluate the steady-state availability, at first define a CTMC. Successively, use the approach based on RBDs and verify that the result is the same.