

Availability Calculation

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I have a system that is supposed to operate for 1 day. This system has a probabilistic failure that can occur after 1 minute, with probability 0.2. If it does happen, then the failure lasts according to the uniform distribution $U(1 \text{ minute}, 9 \text{ minutes})$. A second failure can occur after 23 hours of operation, with probability 0.1. If it does happen, then the failure lasts a constant amount of time = 10 minutes.

What is the availability of this system?