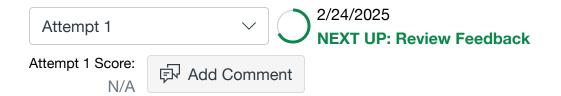
3/3/25, 10:26 PM Worksheet 15

Worksheet 15

8 Points Possible



Unlimited Attempts Allowed

∨ Details

Q1: Think of the advantages/disadvantages of network attached storage.

Q2: Assume you have two independent disks mirrored disks for redundancy with:

MTBF: Mean Time Between Failures: 100,000 hours ~ 11 years.

MTTDL: Mean Time To Repair: 10 hours.

What is the mean time to Data Loss?

Answer1:

Advantages:

- Convenient sharing
- Simultaneously access for all clients

Disadvantages:

- Lower efficiency and performance compared to direct-attached storage
- Increased latency

Answer2:

MTTDL = 10 hours

 $MTBF = 10^5 hours$

Independent disk, N = 2

Mean time to data loss = MTBF 2 / N(N-1) x MTTDL = (10 5) 2 / 2 (2-1) x 10 = 10 1 0 / 2x10 = 0.5 X 10 9 = 5 x 10 8 years (Ans)