Introduction to RAID

-Eli the Computer Guy

1. From a computer's perspective, what does RAID do?

RAID (Redundant Array of Inexpensive disks) allows a computer to see and use multiple hard drives as if they were one (single logical drive).

2. What is the advantage of disk striping?

Disk Striping (RAID 0) allows you to combine multiple (2-32) physical hard drives of the same size into one really big logical hard drive.
Advantage: makes reading/writing to the drives faster.

3. What is the main disadvantage of disk striping?

The disadvantage is that files are spread across multiple drives, so if one drive fails, all data on the RAID is lost.

4. What is the main advantage and disadvantage of disk mirroring?

Disk Mirroring (RAID 1) creates identical copies of data on two physical hard drives.
Advantage: if one hard drive fails, the computer keeps running. Complete Redundancy.
Disadvantage: there is no increase in drive size or speed.

5. What is the major advantage of RAID 5?

RAID 5 (Disk Striping with Parity) has redundancy built in so that it if one hard drive fails, all the data still exists because the other hard drives have the combined information

6. In a RAID 5 context, what does hot swappable mean?

"Hot swappable" means that you can pull a hard drive out while the system is running and put another in.

7. What are the 3 most common RAID configurations?

Disk Striping (RAID 0), Disk Mirroring (RAID 1), and Disk Striping with Parity (RAID 5)