Consider a RAID 6 configuration with 10 disks. How many I/O operations are requested to update one block of a data disk (considering the sum over the entire set of disks)? **[6 I/O operations]**

Consider a RAID 5 configuration with 10 disks. How many I/O operations are requested to update one block of a data disk (considering the sum over the entire set of disks)? **[4 I/O operations]**

Consider a RAID 4 configuration with 10 disks. How many I/O operations are requested to update one block of a data disk (considering the sum over the entire set of disks)? **[4 I/O operations]**

Consider the following RAID 0+1 setup considering 6 disks, each one with an MTTF equal to 600 days and an MTTR equal to 5 days. Consider a single mirror case for the RAID 1 part. What is the MTTF of the storage infrastructure? **[4000 days** or **10,96 years]**

Consider the following RAID 6 setup considering 7 disks, each one with an MTTF equal to 600 days and an MTTR equal to 5 days. What is the MTTF of the storage infrastructure? **[82285 days** or **225 years]**

Consider the following RAID 1+0 setup considering 8 disks, each one with an MTTF equal to 800 days and an MTTR equal to 15 days. Consider a single mirror case for the RAID 1 part. What is the MTTF of the storage infrastructure? **[5333 days** or **14,6 years]**

Consider the following RAID 5 setup considering 7 disks, each one with an MTTF equal to 600 days and an MTTR equal to 5 days. What is the MTTF of the storage infrastructure? **[1714 days** or **4,7 years]**

A RAID 5 system uses four 2TB disks to store data and the required parity bits. Considering that each disk has a Sequential Access Speed (Throughput) of 50MB/s and a Random Access Speed (Throughput) of 5MB/s, what is the expected throughput of the RAID 5 considering a random write pattern? **[5 MB/second]**

A RAID 4 system uses four 2TB disks to store data and the required parity bits. Considering that each disk has a Sequential Access Speed (Throughput) of 50MB/s and a Random Access Speed (Throughput) of 5MB/s, what is the expected throughput of the RAID 4 considering a sequential write pattern? **[150 MB/second]**

We have to design a RAID 0+1 storage architecture composed of an array of 8 disks. Knowing that each disk has a MTTF equal to 400days and that we would like to have a MTTF for the storage infrastructure (MTTFRAID01) higher than 12 years, what is the maximum MTTR that we have to consider to satisfy the requirement? Consider all the disks with the same characteristics. **[1,14 days]**

A RAID 4 system uses four 2TB disks to store data and the required parity bits. Considering that each disk has a Sequential Access Speed (Throughput) of 50MB/s and a Random Access Speed (Throughput) of 5MB/s, what is the expected throughput of the RAID 4 considering a random read pattern? **[15MB/s]**

A RAID 5 system uses eight 2TB disks to store data and the required parity bits. Considering that each disk has a Sequential Access Speed (Throughput) of 75MB/s and a Random Access Speed (Throughput) of 7.5MB/s, what is the expected throughput of the RAID 5 considering a random read pattern? **[60MB/s]**

Consider a RAID 4 configuration composed of an array with 10 disks. What is the minimum number of I/O operations requested to update one block of a single data disk (considering the sum over the entire set of disks)? **[4]**

Consider a RAID 6 configuration composed of an array with 10 disks. What is the minimum number of I/O operations requested to update one block of a single data disk (considering the sum over the entire set of disks)? **[6]**

Consider a RAID 5 configuration composed of an array with 8 disks. What is the minimum number of I/O operations requested to update one block of a single data disk (considering the sum over the entire set of disks)? **[4]**

Considering the following RAID 5 setup with N disks, each one with a MTTF equal to 1200 days and a MTTR equal to 10 days. The minimum MTTDL of the storage infrastructure is 5 years. What is the maximum number N of disks that can be included? **[9]**

We have to design a RAID 0+1 storage architecture composed of an array of 8 disks. Knowing that each disk has a MTTF equal to 450days and that we would like to have a MTTF for the storage infrastructure (MTTFRAID5) higher than 7 years, what is the maximum MTTR that we have to consider to satisfy the requirement? Consider all the disks with the same characteristics and a single mirror case for the RAID 1 part **[2,4768 days]**

We have to design a RAID 1+0 storage architecture composed of an array of 6 disks. Knowing that each disk has a MTTF equal to 425days and that we would like to have a MTTF for the storage infrastructure (MTTFRAID5) higher than 12 years, what is the maximum MTTR that we have to consider to satisfy the requirement? Consider all the disks with the same characteristics and a single mirror case for the RAID 1 part. **[6,8731 days]**

We have to design a RAID 5 storage architecture composed of an array of 7 disks. Knowing that each disk has a MTTF equal to 415days and that we would like to have a MTTF for the storage infrastructure (MTTFRAID5) higher than 15 years, what is the maximum MTTR that we have to consider to satisfy the requirement? Consider all the disks with the same characteristics. **[0,75 days]**

We have to design a RAID 5 storage architecture composed of an array of 8 disks. Knowing that we cannot guarantee an average MTTR lower than 6 hours and that we would like to have a MTTF for the storage infrastructure (MTTFRAID5) higher than 15 years, what is the minimum MTTF that we should consider for each disk? Consider all the disks with the same characteristics **[276,8 days]**

Consider the following RAID 5 setup having an MTTFRAID5 (also called MTTDL) equal to 6.5 years. The storage architecture is composed of 8 disks; each disk has an MTTF equal to 2 years. What is the average MTTR of each disk used within the storage architecture? **[4 days or 0,011 years]**