Consider an HDD with, 4KB as block size, 6ms as average seek time, 0.5 ms as transfer time of 1 block, and a negligible overhead of the controller. Knowing that the average transfer time for a file of 320KB is 568 ms, and the average locality is 40%, what is the rotation speed of the disk? **[6000 RPM]**

Consider an HDD with, 4KB as block size, 12000 RPM as rotation speed, 0.5 ms as transfer time of 1 block, 6ms as average seek time, seek time, and a negligible overhead of the controller. What is the minimum locality required to achieve an average transfer time of 550ms sec for a file of 480KB? **[52%]**

Consider an HDD with a data transfer rate of 10 MB/s, a rotation speed of 7500 RPM, a mean seek time of 6 ms, and a negligible overhead controller. What is the minimum locality required to achieve a mean I/O service time of 2.20 ms to transfer a sector of 4 KB? **[82,00%]**

Consider a HDD with a data transfer rate of 10 MB/s, a rotation speed of 6000 RPM, a mean seek time of 2 ms, and negligible overhead for the controller. What is the time needed to transfer a 4KB block? **[7,39ms]**

Consider an HDD with, 4KB as block size, a rotation speed of 10000 RPM, 0.5 ms as transfer time of 1 block, and a negligible overhead of the controller. Knowing that the average transfer time for a file of 800KB is 880 ms, and the average locality is 60%, what is the average seek time of the disk? **[6,75ms]**

Consider an HDD with a data transfer time of 0.4ms for a 2 KB sector, a rotation speed of 12000 RPM, a mean seek time of 6 ms, and a negligible overhead controller. What minimum locality is required to achieve a mean I/O service time of 8 ms to transfer a 10KB file? **[85,88%]**

Consider an HDD with the following characteristics: block size 4KB, average seek time 3ms, data transfer time for a single block 0.5ms, and a negligible overhead controller. Knowing that the average locality is 75% and the average I/O service time to transfer an 800KB file is 400ms, what is the rotation speed for the disk in RPM? **[10000]**