Name:	Operating Systems Course – Quiz 3,4
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1. Consider a computer system with a **64-bit** virtual address space in which the size of each page is **8192 bytes**. The system uses a multi-level page table mechanism and each page table entry (PTE) is **4 bytes**. Each page table consumes exactly one page. How many levels of page tables exist in this system?

2. In a MMU unit, a TLB with a **90%** hit ratio is used. The mean time to read from memory and disk is **10ms** and **100ms**. If the possibility of a page to exist in main memory is **0.9** what's the mean time to access a memory address? (***Hint:*** *page table is one-level, all the page table is always in main memory and do not consider the reading time from TLB*)

3. Consider these disk scheduling algorithms: Priority, SSTF, FIFO, LIFO, SCAN, C-SCAN, LOOK and C-Look:
   - Which of them can lead to starvation?
   - Which one can be used as a real-time disk scheduler?
   - Which of them may waste head movements?
   - Which of them guarantee a minimal head movement?
   - Which one is referred to as *elevator*?