Segmenting

1. How many base/limit pairs are there?

One per computer

One per core

One per thread/process

1. The base is 100, the limit is 2000. What is the physical address for virtual address 1234?
2. The base is 1000. The limit is 2000. What is the virtual address corresponding to physical address 1500?

Paging

1. Given the page table on the board, what is the physical address of virtual address 10,000. Page size is 4096.
2. (true/false) Paging is faster than segmenting.
3. I’m doing 1,000,000 allocations. Each one is 500,000 bytes average (mean) and 600,000 (mode) and 400,000 (median), but vary a lot in a random way. The page size is 4096 bytes. How many bytes are wasted due to internal fragmentation?

Other

1. I have four core and start 5 threads. What happens?

 Operating system rejects the start for the fifth thread.
 Fifth thread crashes
 One of the threads crashes, depending on a race.
 It’s all good.