1. What are the three different times binding of instruction to memory can occur?
   * Compile time binding, Load time binding anf execution time binding
2. What is the difference between logical address and physical address?
   * Logical address: The address generated by the CPU/visible to the process (virtual address)
   * Physical address: The actual address in the physical memory (RAM) where data is stored.
3. If a process needs 42byte memory space, if each page is 5 bytes, calculate the fragmentation in bytes after the process is loaded to the memory.
   * Process needs: 42 bytes
   * Page size: 5 bytes
   * Number of pages needed = ⌈42/5⌉ = 9 pages
   * Total allocated space = 9 pages × 5 bytes = 45 bytes
   * Internal fragmentation = 45 - 42 = 3 bytes
4. What are the three different ways you can solve large page table maintenance overhead issue.
   * Multilevel paging, hashed page tables and inverted page tables
5. What are the two advantages and disadvantages of Paging vs. Segmentation.
   * Advantages: No internal fragmentation and logical division of program
   * Disadvantages: Complex memory allocation and external fragmentation
6. T/F Compaction is one way of controlling fragmentation.
   * True
7. T/F CPU read TLBs (Translation look-aside buffers) after reading the page table.
   * False
8. T/F 500MB process swapping to hard disk with transfer rate of 25MB/sec. Total context switch swapping component time is 20sec.
   * False