1. The invalid bit is used for detecting:
   If a page is not in memory

2. Which type of page-replacement policy does thrashing occur in most commonly?
   FIFO

3. Assume primary memory has 3 page frames all of which are empty. For the following sequence of page references, calculate the number of page faults under the FIFO.
   Sequence: 1, 2, 3, 1, 4, 1, 2, 4, 2, 4, 3.
   7

4. Assume primary memory has 3 page frames all of which are empty. For the following sequence of page references, calculate the number of page faults under the LRU.
   Sequence: 1, 2, 3, 1, 4, 1, 2, 4, 2, 4, 3.
   6

5. The purpose(s) of Virtual memory are:
   Decouples a memory fragment from an application
   A process can now have infinite RAM

6. A process is said to be "thrashing" if it spends more time executing than paging
   False

7. The problem with the OPT page replacement algorithm is it requires future knowledge but FIFO page-replacement policy is an approximation of OPT.
   False

8. Belady's Anomaly is theoretical and will not happen in empirical tests. Belady's Anomaly refers to the concept of which increasing the size of allocated frames may increase the number of page faults.
   False

9. Global page replacement selects:
   Any page from any process

10. Which of the following is not true about Memory Mapped Files?
    a. Multiple processes can share file for read and write
    b. **The whole file must be loaded into RAM**
    c. RAM access is faster than disk access
    d. Changes are written to disk as needed