***Class Test 2***

1. In an 18 bit virtual addressing environment, 6 bits are needed for addressing the pages. Now assuming 0.5 MB physical memory, determine the following:
2. Size of a page frame.
3. Number of pages and page frames.
4. Physical address = ? bits
5. Assume, currently four pages are loaded in RAM – A, B, C and D. Each page has a 6-bit counter which is initialized to 0. The reference history of these pages in the past 4 clock ticks is as follows–
6. Tick 1: A, B
7. Tick 2: A, C, D
8. Tick 3: B
9. Tick 4: A, D

Now if a new page E is required to be loaded by replacing one of these pages, how will you select it using **AGING?** Show all the steps in your calculation.