Jon Hoatlin

4/4/12

1. Page ref string: 1, 2, 3, 4, 2, 1, 5, 6, 2, 1, 2, 3, 7, 6, 3, 2, 1, 2, 3, 6

LRU: F, F, F, F, 2, 1, F, F, 2, 1, 2, F, F, F, 2, F, 2, F, 6 LRU has 11 page faults

FIFO: F, F, F, F, 2, 1, F, F, F, F, 2, F, F, F, 3, 2, F, F, F, 6 FIFO has 14 page faults

Optimal: F, F, F, F, 2, 1, F, F, 2, 1, 2, F, F, 6, 3, 2, F, 2, 3, 6 Optimal has 9 page faults

1. The virtual address generated of 0x11123456 is separated into the page number and the offset. 0x456 are the bits used for the offset while bits 0x11123 are used for the page number. The page mapping table uses the bits for the page number and determines the frame in physical memory where that page is contained.
2. The effective memory access time is a(.8 + 20\*.02) = 1.2a msecs

Practical: The swap daemon is activated in the release\_pages() function which can be found in linux/mm/swap.c