Optimal page replacement

Frame size = 4

Frames	3	6	2	1	3	4	1	6	2	4	4	2	3	4	2	1	4	5	2	1	3	4
0	3	6	2	1	3	4	1	6	2	4	4	2	3	4	2	1	4	5	2	1	3	4
1	3	3	3	3	3	4	4	6	2	4	4	4	4	4	4	3	4	5	5	5	5	4
2		6	6	6	6	6	6	2	6	6	6	6	3	3	3	2	3	3	3	5	3	3
3			2	2	2	2	2	1	1	2	2	2	2	2	2	1	2	2	1	3	2	2
				1	1	1	1	*	*	1	1	1	1	1	1	*	1	1	*	2	1	1
					*	*	*			*	*	*	*	*	*		*	*		*	*	*

Page - hit : (*) = 14

Page fault = 22 - 14 = 8

Frame size = 4 LRU (Least recently used)

Frames	3	6	2	1	3	4	1	6	2	4	4	2	3	4	2	1	4	5	2	1	3	4
0	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1		6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3
2			2	2	2	2	2	6	6	6	6	6	6	6	6	1	1	1	1	1	1	1
3				1	1	1	1	1	1	1	1	1	3	3	3	3	3	5	5	5	5	4
					*		*			*	*	*		*	*		*		*	*		

Page - hit : (*) = 10

Page - fault : 22 - 10 = 12

Frame size = 4 FIFO (First in First Out)

Frame(4)	3	6	2	1	3	4	1	6	2	4	4	2	3	4	2	1	4	5	2	1	3	4
0	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1	1	1
1		6	6	6	6	6	6	6	6	6	6	6	3	3	3	3	3	3	3	3	3	4
2			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5	5	5	5	5
3				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
					*		*	*	*	*	*	*		*	*	*	*				*	

22 (total elements in string)

Page hit = (*) = 12

Page fault = 22 - 12 = 10

Page fault = 10