

CS 544, Cache Policy Worksheet

Problem 1

FIFO, size 2:

1, 12, 23, 31

recent

Data Hit?

1	X
2	X
1	V
3	X
1	X

Hit Rate: 20%

Problem 2

LRU, size 2:

A, AB, BA, AC

recent

Data Hit?

A	X
B	X
A	V
C	X
A	V

Hit Rate: 40%

Problem 3

FIFO, size 3:

W, WX, WXY, XYZ

recent

Data Hit?

W	X
W	V
X	X
Y	X
Y	V
Z	X
Y	V
X	V

Hit Rate: 50%

Miss latency: 20 ms

Hit latency: 0.1 ms

Average latency: 10.05

Problem 4

LRU, size 4: 3, 34, 345, 3456, 4567, 5673, 6734, 7345, 3456, 4567

recent

Data Hit?

3	X
4	X
5	X
6	X
7	X
3	X
4	X
5	X
6	X
7	X

Hit Rate: 0

Problem 5

LRU, size 5: 34567

recent

Data Hit?

3	X
4	X
5	X
6	X
7	X
3	V
4	V
5	V
6	V
7	V

Hit Rate: 50%