

# Test Cases for Cache Simulator:

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## Test Case:

### Configuration:

```
256
32
1
FIFO
WB
```

### Access sequences:

```
R: 0x1234
W: 0x5678
R: 0x1234
```

### Output:

```
Address: 0x00001234, Set: 0x1, Miss, Tag: 0x000012
Address: 0x00005678, Set: 0x3, Miss, Tag: 0x000056
Address: 0x00001234, Set: 0x1, Hit, Tag: 0x000012
```

## Test Case:

### Configuration:

```
8192
256
16
RANDOM
WT
```

### Access sequences:

```
R: 0xAABB
W: 0xCCDD
R: 0xEEFF
W: 0x1122
```

```
R: 0xAABB
R: 0x3344
W: 0xCCDD
R: 0xAABB
W: 0xEEFF
R: 0x1122
R: 0x3344
```

## Output:

```
Address: 0x0000aabb, Set: 0x0, Miss, Tag: 0x000055
Address: 0x0000ccdd, Set: 0x0, Miss, Tag: 0x000066
Address: 0x0000eeff, Set: 0x0, Miss, Tag: 0x000077
Address: 0x00001122, Set: 0x1, Miss, Tag: 0x000008
Address: 0x0000aabb, Set: 0x0, Hit, Tag: 0x000055
Address: 0x00003344, Set: 0x1, Miss, Tag: 0x000019
Address: 0x0000ccdd, Set: 0x0, Miss, Tag: 0x000066
Address: 0x0000aabb, Set: 0x0, Hit, Tag: 0x000055
Address: 0x0000eeff, Set: 0x0, Hit, Tag: 0x000077
Address: 0x00001122, Set: 0x1, Miss, Tag: 0x000008
Address: 0x00003344, Set: 0x1, Hit, Tag: 0x000019
```

## Test Case:

### Configuration:

```
16384
512
0
LRU
WB
```

### Access sequences:

```
R: 0x1234
W: 0x5678
R: 0x9ABC
W: 0xDEFF
R: 0x1234
R: 0x9ABC
W: 0x5678
R: 0xDEFF
R: 0x1234
W: 0xDEFF
```

```
R: 0x9ABC
W: 0x5678
```

Output:

```
Address: 0x00001234, Set: 0x0, Miss, Tag: 0x000009
Address: 0x00005678, Set: 0x0, Miss, Tag: 0x00002b
Address: 0x00009abc, Set: 0x0, Miss, Tag: 0x00004d
Address: 0x0000deff, Set: 0x0, Miss, Tag: 0x00006f
Address: 0x00001234, Set: 0x0, Hit, Tag: 0x000009
Address: 0x00009abc, Set: 0x0, Hit, Tag: 0x00004d
Address: 0x00005678, Set: 0x0, Hit, Tag: 0x00002b
Address: 0x0000deff, Set: 0x0, Hit, Tag: 0x00006f
Address: 0x00001234, Set: 0x0, Hit, Tag: 0x000009
Address: 0x0000deff, Set: 0x0, Hit, Tag: 0x00006f
Address: 0x00009abc, Set: 0x0, Hit, Tag: 0x00004d
Address: 0x00005678, Set: 0x0, Hit, Tag: 0x00002b
```

Test Case:

Configuration:

```
4096
128
4
FIFO
WT
```

Access sequences:

```
W: 0x1234
R: 0x5678
W: 0x9ABC
R: 0xDEFF
W: 0x1234
R: 0x9ABC
W: 0x5678
R: 0xDEFF
R: 0x1234
W: 0xDEFF
R: 0x9ABC
W: 0x5678
```

Output:

```
Address: 0x00001234, Set: 0x4, Miss, Tag: 0x000004
Address: 0x00005678, Set: 0x4, Miss, Tag: 0x000015
Address: 0x00009abc, Set: 0x5, Miss, Tag: 0x000026
Address: 0x0000deff, Set: 0x5, Miss, Tag: 0x000037
Address: 0x00001234, Set: 0x4, Miss, Tag: 0x000004
Address: 0x00009abc, Set: 0x5, Miss, Tag: 0x000026
Address: 0x00005678, Set: 0x4, Hit, Tag: 0x000015
Address: 0x0000deff, Set: 0x5, Hit, Tag: 0x000037
Address: 0x00001234, Set: 0x4, Miss, Tag: 0x000004
Address: 0x0000deff, Set: 0x5, Hit, Tag: 0x000037
Address: 0x00009abc, Set: 0x5, Hit, Tag: 0x000026
Address: 0x00005678, Set: 0x4, Hit, Tag: 0x000015
```

## Test Case:

### Configuration:

```
32768
512
8
LRU
WB
```

### Access sequences:

```
R: 0x1234
R: 0x5678
W: 0x1234
W: 0x9ABC
R: 0x5678
R: 0x1234
W: 0x9ABC
W: 0xDEFF
R: 0xDEFF
R: 0x1234
W: 0x9ABC
R: 0x5678
```

### Output:

```
Address: 0x00001234, Set: 0x1, Miss, Tag: 0x000001
Address: 0x00005678, Set: 0x3, Miss, Tag: 0x000005
Address: 0x00001234, Set: 0x1, Hit, Tag: 0x000001
Address: 0x00009abc, Set: 0x5, Miss, Tag: 0x000009
Address: 0x00005678, Set: 0x3, Hit, Tag: 0x000005
```

```
Address: 0x00001234, Set: 0x1, Hit, Tag: 0x00001
Address: 0x00009abc, Set: 0x5, Hit, Tag: 0x00009
Address: 0x0000deff, Set: 0x7, Miss, Tag: 0x0000d
Address: 0x0000deff, Set: 0x7, Hit, Tag: 0x0000d
Address: 0x00001234, Set: 0x1, Hit, Tag: 0x00001
Address: 0x00009abc, Set: 0x5, Hit, Tag: 0x00009
Address: 0x00005678, Set: 0x3, Hit, Tag: 0x00005
```

## Test Case:

### Configuration:

```
8192
256
4
RANDOM
WT
```

### Access sequences:

```
R: 0x1234
W: 0x5678
R: 0x9ABC
W: 0xDEFF
R: 0x1234
W: 0x9ABC
R: 0x5678
R: 0x1234
W: 0xDEFF
R: 0x1234
R: 0x9ABC
W: 0xDEFF
W: 0x1234
R: 0x5678
W: 0x1234
R: 0x9ABC
R: 0x1234
R: 0x1234
W: 0x5678
R: 0x9ABC
R: 0x1234
W: 0xDEFF
W: 0x1234
R: 0x5678
R: 0x1234
R: 0x9ABC
W: 0xDEFF
R: 0x1234
R: 0x9ABC
```

W: 0x5678  
R: 0x1234  
R: 0xDEFF  
W: 0x1234  
W: 0x9ABC  
R: 0x5678  
R: 0x1234  
W: 0xDEFF  
W: 0x1234  
R: 0x5678  
R: 0x1234  
R: 0x9ABC  
W: 0xDEFF  
R: 0x1234  
W: 0x5678  
R: 0x1234  
W: 0x9ABC  
W: 0x1234  
R: 0x5678  
R: 0x1234  
R: 0x9ABC  
W: 0xDEFF  
R: 0x1234  
R: 0x9ABC  
W: 0x5678  
R: 0x1234  
R: 0xDEFF  
W: 0x1234  
W: 0x9ABC  
R: 0x5678  
R: 0x1234  
W: 0xDEFF  
W: 0x1234  
R: 0x5678  
R: 0x1234  
R: 0x9ABC  
W: 0xDEFF  
R: 0x1234  
R: 0x9ABC  
W: 0x5678  
R: 0x1234  
R: 0xDEFF  
W: 0x1234  
W: 0x9ABC  
R: 0x5678  
R: 0x1234  
W: 0xDEFF  
W: 0x1234  
R: 0x5678  
R: 0x1234  
R: 0x9ABC  
W: 0xDEFF  
R: 0x1234  
R: 0x9ABC

```
W: 0x5678
R: 0x1234
R: 0xDEFF
W: 0x1234
W: 0x9ABC
R: 0x5678
R: 0x1234
W: 0xDEFF
W: 0x1234
R: 0x5678
R: 0x1234
R: 0x9ABC
W: 0xDEFF
R: 0x1234
R: 0x9ABC
W: 0x5678
R: 0x1234
R: 0xDEFF
W: 0x1234
W: 0x9ABC
R: 0x5678
R: 0x1234
W: 0xDEFF
W: 0x1234
R: 0x5678
```

## Output:

```
Address: 0x00001234, Set: 0x2, Miss, Tag: 0x000002
Address: 0x00005678, Set: 0x6, Miss, Tag: 0x00000a
Address: 0x00009abc, Set: 0x2, Miss, Tag: 0x000013
Address: 0x0000deff, Set: 0x6, Miss, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00005678, Set: 0x6, Miss, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x0000deff, Set: 0x6, Miss, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x0000deff, Set: 0x6, Miss, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x0000deff, Set: 0x6, Miss, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
```

/



```
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x0000deff, Set: 0x6, Hit, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x0000deff, Set: 0x6, Hit, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x0000deff, Set: 0x6, Hit, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x0000deff, Set: 0x6, Hit, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x0000deff, Set: 0x6, Hit, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00009abc, Set: 0x2, Hit, Tag: 0x000013
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x0000deff, Set: 0x6, Hit, Tag: 0x00001b
Address: 0x00001234, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00005678, Set: 0x6, Hit, Tag: 0x00000a
```

## Test Case:

### Configuration:

```
1024
64
2
LRU
WB
```

### Access sequences:

```
R: 768
W: 557
R: 592
W: 79
R: 69
```

W: 981  
R: 469  
W: 74  
R: 34  
W: 224  
R: 153  
W: 49  
R: 802  
W: 478  
R: 165  
W: 141  
R: 242  
W: 778  
R: 552  
W: 957  
R: 682  
W: 131  
R: 746  
W: 575  
R: 685  
W: 850  
R: 258  
W: 915  
R: 978  
W: 1016  
R: 731  
W: 722  
R: 549  
W: 300  
R: 801  
W: 618  
R: 257  
W: 246  
R: 693  
W: 291  
R: 471  
W: 846  
R: 340  
W: 249  
R: 300  
W: 506  
R: 390  
W: 542  
R: 260  
W: 942  
R: 476  
W: 942  
R: 49  
W: 198  
R: 493  
W: 734  
R: 24  
W: 751  
R: 625

```
W: 1002
R: 743
W: 333
R: 700
W: 268
R: 633
W: 477
R: 887
W: 890
R: 724
W: 556
R: 158
W: 171
R: 378
W: 498
R: 420
W: 678
R: 1004
W: 810
R: 196
W: 241
R: 728
W: 672
R: 159
W: 778
R: 870
W: 653
R: 488
W: 894
R: 380
W: 90
R: 872
W: 100
R: 423
W: 548
R: 368
W: 32
R: 2
W: 231
R: 922
W: 726
```

## Output:

```
Address: 0x00000768, Set: 0x5, Miss, Tag: 0x0000003
Address: 0x00000557, Set: 0x5, Miss, Tag: 0x0000002
Address: 0x00000592, Set: 0x6, Miss, Tag: 0x0000002
Address: 0x00000079, Set: 0x1, Miss, Tag: 0x0000000
Address: 0x00000069, Set: 0x1, Hit, Tag: 0x0000000
Address: 0x00000981, Set: 0x6, Miss, Tag: 0x0000004
Address: 0x00000469, Set: 0x1, Miss, Tag: 0x0000002
```

Address: 0x00000074, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000034, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000224, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000153, Set: 0x5, Miss, Tag: 0x000000  
Address: 0x00000049, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000802, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000478, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000165, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000141, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000242, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00000778, Set: 0x5, Miss, Tag: 0x000003  
Address: 0x00000552, Set: 0x5, Miss, Tag: 0x000002  
Address: 0x00000957, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00000682, Set: 0x2, Miss, Tag: 0x000003  
Address: 0x00000131, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00000746, Set: 0x5, Miss, Tag: 0x000003  
Address: 0x00000575, Set: 0x5, Miss, Tag: 0x000002  
Address: 0x00000685, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000850, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00000258, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000915, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00000978, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00001016, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00000731, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000722, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000549, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000300, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00000801, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000618, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00000257, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000246, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000693, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000291, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00000471, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000846, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00000340, Set: 0x5, Miss, Tag: 0x000001  
Address: 0x00000249, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00000300, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00000506, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000390, Set: 0x6, Miss, Tag: 0x000001  
Address: 0x00000542, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000260, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000942, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00000476, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000942, Set: 0x5, Hit, Tag: 0x000004  
Address: 0x00000049, Set: 0x1, Miss, Tag: 0x000000  
Address: 0x00000198, Set: 0x6, Miss, Tag: 0x000000  
Address: 0x00000493, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000734, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000024, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000751, Set: 0x5, Miss, Tag: 0x000003  
Address: 0x00000625, Set: 0x0, Hit, Tag: 0x000003  
Address: 0x00001002, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00000743, Set: 0x5, Hit, Tag: 0x000003

```
Address: 0x00000333, Set: 0x4, Miss, Tag: 0x000001
Address: 0x00000700, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000268, Set: 0x1, Miss, Tag: 0x000001
Address: 0x00000633, Set: 0x0, Hit, Tag: 0x000003
Address: 0x00000477, Set: 0x1, Miss, Tag: 0x000002
Address: 0x00000887, Set: 0x2, Miss, Tag: 0x000004
Address: 0x00000890, Set: 0x2, Hit, Tag: 0x000004
Address: 0x00000724, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000556, Set: 0x5, Hit, Tag: 0x000002
Address: 0x00000158, Set: 0x5, Miss, Tag: 0x000000
Address: 0x00000171, Set: 0x5, Hit, Tag: 0x000000
Address: 0x00000378, Set: 0x5, Miss, Tag: 0x000001
Address: 0x00000498, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00000420, Set: 0x0, Miss, Tag: 0x000002
Address: 0x00000678, Set: 0x1, Miss, Tag: 0x000003
Address: 0x00001004, Set: 0x0, Miss, Tag: 0x000008
Address: 0x00000810, Set: 0x0, Miss, Tag: 0x000004
Address: 0x00000196, Set: 0x6, Hit, Tag: 0x000000
Address: 0x00000241, Set: 0x1, Miss, Tag: 0x000001
Address: 0x00000728, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000672, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000159, Set: 0x5, Miss, Tag: 0x000000
Address: 0x00000778, Set: 0x5, Miss, Tag: 0x000003
Address: 0x00000870, Set: 0x1, Miss, Tag: 0x000004
Address: 0x00000653, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000488, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00000894, Set: 0x2, Hit, Tag: 0x000004
Address: 0x00000380, Set: 0x6, Hit, Tag: 0x000001
Address: 0x00000090, Set: 0x2, Miss, Tag: 0x000000
Address: 0x00000872, Set: 0x1, Hit, Tag: 0x000004
Address: 0x00000100, Set: 0x4, Miss, Tag: 0x000000
Address: 0x00000423, Set: 0x0, Miss, Tag: 0x000002
Address: 0x00000548, Set: 0x5, Miss, Tag: 0x000002
Address: 0x00000368, Set: 0x5, Miss, Tag: 0x000001
Address: 0x00000032, Set: 0x0, Miss, Tag: 0x000000
Address: 0x00000002, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00000231, Set: 0x0, Miss, Tag: 0x000001
Address: 0x00000922, Set: 0x4, Miss, Tag: 0x000004
Address: 0x00000726, Set: 0x4, Miss, Tag: 0x000003
```

## Test Case:

### Configuration:

```
2048
64
4
LRU
WB
```

## Access sequences:

R: 196  
W: 693  
R: 86  
W: 706  
R: 229  
W: 1017  
R: 662  
W: 415  
R: 838  
W: 248  
R: 469  
W: 762  
R: 662  
W: 440  
R: 412  
W: 765  
R: 803  
W: 663  
R: 463  
W: 498  
R: 818  
W: 7  
R: 1011  
W: 381  
R: 281  
W: 734  
R: 921  
W: 25  
R: 275  
W: 519  
R: 968  
W: 472  
R: 188  
W: 30  
R: 154  
W: 417  
R: 23  
W: 816  
R: 833  
W: 862  
R: 40  
W: 278  
R: 600  
W: 702  
R: 718  
W: 1012  
R: 444  
W: 497  
R: 652  
W: 907

R: 996  
W: 446  
R: 914  
W: 983  
R: 827  
W: 171  
R: 694  
W: 725  
R: 197  
W: 969  
R: 220  
W: 141  
R: 417  
W: 408  
R: 172  
W: 572  
R: 826  
W: 195  
R: 364  
W: 635  
R: 33  
W: 405  
R: 913  
W: 633  
R: 83  
W: 607  
R: 622  
W: 527  
R: 81  
W: 250  
R: 411  
W: 53  
R: 696  
W: 301  
R: 12  
W: 499  
R: 473  
W: 706  
R: 200  
W: 670  
R: 652  
W: 420  
R: 811  
W: 45  
R: 829  
W: 983  
R: 617  
W: 631  
R: 155  
W: 982  
R: 242  
W: 188  
R: 363  
W: 131

R: 822  
W: 446  
R: 738  
W: 420  
R: 974  
W: 819  
R: 670  
W: 361  
R: 872  
W: 342  
R: 662  
W: 885  
R: 841  
W: 111  
R: 567  
W: 18  
R: 781  
W: 195  
R: 438  
W: 569  
R: 241  
W: 243  
R: 528  
W: 858  
R: 874  
W: 683  
R: 816  
W: 92  
R: 872  
W: 155  
R: 223  
W: 670  
R: 602  
W: 962  
R: 66  
W: 552  
R: 757  
W: 736  
R: 913  
W: 606  
R: 54  
W: 551  
R: 467  
W: 895  
R: 663  
W: 10  
R: 913  
W: 420  
R: 206  
W: 328  
R: 989  
W: 447  
R: 571  
W: 494



R: 281  
W: 422  
R: 153  
W: 74  
R: 514  
W: 1  
R: 229  
W: 738  
R: 671  
W: 831  
R: 676  
W: 737  
R: 359  
W: 409  
R: 449  
W: 248  
R: 1015  
W: 503  
R: 800  
W: 458  
R: 375  
W: 439  
R: 469  
W: 264  
R: 859  
W: 675  
R: 592  
W: 825  
R: 98  
W: 140  
R: 295  
W: 379  
R: 562  
W: 448  
R: 453  
W: 52  
R: 450  
W: 683  
R: 790  
W: 97  
R: 490  
W: 442  
R: 835  
W: 850  
R: 852  
W: 260  
R: 74  
W: 843  
R: 764  
W: 874  
R: 278  
W: 115  
R: 289  
W: 747

R: 379  
W: 125  
R: 398  
W: 972  
R: 950  
W: 496  
R: 88  
W: 221  
R: 875  
W: 650  
R: 669  
W: 305  
R: 702  
W: 95  
R: 988  
W: 469  
R: 193  
W: 454  
R: 911  
W: 4  
R: 280  
W: 739  
R: 264  
W: 355  
R: 559  
W: 4  
R: 205  
W: 837  
R: 119  
W: 495  
R: 560  
W: 499  
R: 620  
W: 958  
R: 447  
W: 546  
R: 430  
W: 535  
R: 767  
W: 281  
R: 161  
W: 412  
R: 586  
W: 863  
R: 508  
W: 550  
R: 308  
W: 701  
R: 1005  
W: 196  
R: 705  
W: 261  
R: 935  
W: 969

R: 616  
W: 470  
R: 974  
W: 822  
R: 283  
W: 69  
R: 293  
W: 843  
R: 568  
W: 913  
R: 777  
W: 1015  
R: 435  
W: 183  
R: 526  
W: 178  
R: 465  
W: 687  
R: 590  
W: 27  
R: 527  
W: 74  
R: 578  
W: 835  
R: 775  
W: 559  
R: 7  
W: 456  
R: 820  
W: 943  
R: 402  
W: 413  
R: 389  
W: 352  
R: 211  
W: 673  
R: 421  
W: 504  
R: 492  
W: 990  
R: 393  
W: 246  
R: 981  
W: 828  
R: 429  
W: 484  
R: 1006  
W: 894  
R: 147  
W: 572  
R: 922  
W: 674  
R: 647  
W: 476

R: 486  
W: 398  
R: 11  
W: 493  
R: 855  
W: 831  
R: 412  
W: 233  
R: 220  
W: 802  
R: 585  
W: 431  
R: 451  
W: 1006  
R: 935  
W: 943  
R: 972  
W: 304  
R: 165  
W: 930  
R: 108  
W: 595  
R: 390  
W: 90  
R: 465  
W: 537  
R: 663  
W: 363  
R: 188  
W: 286  
R: 839  
W: 674  
R: 684  
W: 850  
R: 143  
W: 515  
R: 658  
W: 556  
R: 748  
W: 878  
R: 334  
W: 309  
R: 286  
W: 785  
R: 292  
W: 197  
R: 704  
W: 240  
R: 502  
W: 870  
R: 146  
W: 610  
R: 441  
W: 536

R: 701  
W: 906  
R: 50  
W: 340  
R: 246  
W: 238  
R: 626  
W: 61  
R: 912  
W: 286  
R: 912  
W: 31  
R: 802  
W: 546  
R: 587  
W: 526  
R: 400  
W: 921  
R: 836  
W: 686  
R: 682  
W: 104  
R: 884  
W: 363  
R: 344  
W: 362  
R: 209  
W: 491  
R: 972  
W: 650  
R: 3  
W: 649  
R: 532  
W: 53  
R: 989  
W: 778  
R: 291  
W: 591  
R: 840  
W: 179  
R: 878  
W: 728  
R: 211  
W: 656  
R: 250  
W: 798  
R: 158  
W: 650  
R: 696  
W: 994  
R: 313  
W: 354  
R: 74  
W: 173

R: 717  
W: 419  
R: 535  
W: 926  
R: 910  
W: 483  
R: 552  
W: 913  
R: 109  
W: 61  
R: 967  
W: 74  
R: 839  
W: 234  
R: 666  
W: 655  
R: 414  
W: 520  
R: 359  
W: 625  
R: 152  
W: 609  
R: 399  
W: 310  
R: 236  
W: 71  
R: 281  
W: 549  
R: 426  
W: 355  
R: 722  
W: 119  
R: 774  
W: 233  
R: 22  
W: 660  
R: 716  
W: 574  
R: 550  
W: 825  
R: 635  
W: 493  
R: 900  
W: 451  
R: 727  
W: 542  
R: 82  
W: 117  
R: 38  
W: 442  
R: 742  
W: 190  
R: 27  
W: 118

```
R: 500
W: 263
R: 189
W: 781
R: 812
W: 615
R: 113
W: 510
R: 735
W: 887
R: 743
W: 757
R: 524
W: 436
R: 307
W: 50
R: 237
W: 943
```

## Output:

```
Address: 0x00000196, Set: 0x6, Miss, Tag: 0x000000
Address: 0x00000693, Set: 0x2, Miss, Tag: 0x000003
Address: 0x00000086, Set: 0x2, Miss, Tag: 0x000000
Address: 0x00000706, Set: 0x4, Miss, Tag: 0x000003
Address: 0x00000229, Set: 0x0, Miss, Tag: 0x000001
Address: 0x00001017, Set: 0x0, Miss, Tag: 0x000008
Address: 0x00000662, Set: 0x1, Miss, Tag: 0x000003
Address: 0x00000415, Set: 0x0, Miss, Tag: 0x000002
Address: 0x00000838, Set: 0x0, Miss, Tag: 0x000004
Address: 0x00000248, Set: 0x1, Miss, Tag: 0x000001
Address: 0x00000469, Set: 0x1, Miss, Tag: 0x000002
Address: 0x00000762, Set: 0x5, Miss, Tag: 0x000003
Address: 0x00000662, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000440, Set: 0x1, Hit, Tag: 0x000002
Address: 0x00000412, Set: 0x0, Hit, Tag: 0x000002
Address: 0x00000765, Set: 0x5, Hit, Tag: 0x000003
Address: 0x00000803, Set: 0x0, Hit, Tag: 0x000004
Address: 0x00000663, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000463, Set: 0x1, Hit, Tag: 0x000002
Address: 0x00000498, Set: 0x2, Miss, Tag: 0x000002
Address: 0x00000818, Set: 0x0, Hit, Tag: 0x000004
Address: 0x00000007, Set: 0x0, Miss, Tag: 0x000000
Address: 0x00001011, Set: 0x0, Hit, Tag: 0x000008
Address: 0x00000381, Set: 0x6, Miss, Tag: 0x000001
Address: 0x00000281, Set: 0x2, Miss, Tag: 0x000001
Address: 0x00000734, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000921, Set: 0x4, Miss, Tag: 0x000004
Address: 0x00000025, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00000275, Set: 0x1, Hit, Tag: 0x000001
Address: 0x00000519, Set: 0x4, Miss, Tag: 0x000002
```

Address: 0x00000968, Set: 0x5, Miss, Tag: 0x0000004  
Address: 0x00000472, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000188, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000030, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000154, Set: 0x5, Miss, Tag: 0x0000000  
Address: 0x00000417, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000023, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000816, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000833, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000862, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000040, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00000278, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000600, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000702, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000718, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00001012, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00000444, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000497, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000652, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000907, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000996, Set: 0x6, Miss, Tag: 0x0000004  
Address: 0x00000446, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000914, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000983, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000827, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000171, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000694, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000725, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000197, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000969, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000220, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000141, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000417, Set: 0x0, Miss, Tag: 0x0000002  
Address: 0x00000408, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000172, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000572, Set: 0x5, Miss, Tag: 0x0000002  
Address: 0x00000826, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000195, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000364, Set: 0x5, Miss, Tag: 0x0000001  
Address: 0x00000635, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000033, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00000405, Set: 0x0, Miss, Tag: 0x0000002  
Address: 0x00000913, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000633, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000083, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000607, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000622, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000527, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000081, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000250, Set: 0x1, Miss, Tag: 0x0000001  
Address: 0x00000411, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000053, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000696, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000301, Set: 0x4, Miss, Tag: 0x0000001



Address: 0x00000012, Set: 0x0, Hit, Tag: 0x000000  
Address: 0x00000499, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00000473, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000706, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000200, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000670, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000652, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000420, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000811, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000045, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000829, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000983, Set: 0x6, Hit, Tag: 0x000004  
Address: 0x00000617, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00000631, Set: 0x0, Hit, Tag: 0x000003  
Address: 0x00000155, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000982, Set: 0x6, Hit, Tag: 0x000004  
Address: 0x00000242, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000188, Set: 0x6, Hit, Tag: 0x000000  
Address: 0x00000363, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000131, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00000822, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000446, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000738, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000420, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000974, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00000819, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000670, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000361, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000872, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00000342, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000662, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000885, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000841, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000111, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00000567, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000018, Set: 0x0, Hit, Tag: 0x000000  
Address: 0x00000781, Set: 0x6, Miss, Tag: 0x000003  
Address: 0x00000195, Set: 0x6, Hit, Tag: 0x000000  
Address: 0x00000438, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000569, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000241, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000243, Set: 0x1, Hit, Tag: 0x000001  
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Address: 0x00000858, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000874, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000683, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000816, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000092, Set: 0x2, Hit, Tag: 0x000000  
Address: 0x00000872, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000155, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000223, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000670, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000602, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00000962, Set: 0x5, Hit, Tag: 0x000004

Address: 0x00000066, Set: 0x1, Hit, Tag: 0x000000  
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Address: 0x00000757, Set: 0x5, Miss, Tag: 0x000003  
Address: 0x00000736, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000913, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00000606, Set: 0x0, Hit, Tag: 0x000003  
Address: 0x00000054, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000551, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000467, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000895, Set: 0x2, Hit, Tag: 0x000004  
Address: 0x00000663, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000010, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000913, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000420, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000206, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00000328, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00000989, Set: 0x6, Hit, Tag: 0x000004  
Address: 0x00000447, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000571, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000494, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000281, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000422, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000153, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000074, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000514, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000001, Set: 0x0, Hit, Tag: 0x000000  
Address: 0x00000229, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00000738, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000671, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000831, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000676, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000737, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000359, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000409, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000449, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000248, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x000001015, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00000503, Set: 0x4, Hit, Tag: 0x000002  
Address: 0x00000800, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000458, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000375, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000439, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000469, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00000264, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000859, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000675, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000592, Set: 0x6, Miss, Tag: 0x000002  
Address: 0x00000825, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000098, Set: 0x2, Hit, Tag: 0x000000  
Address: 0x00000140, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000295, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000379, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000562, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000448, Set: 0x1, Hit, Tag: 0x000002

Address: 0x00000453, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000052, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00000450, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000683, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000790, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000097, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000490, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000442, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000835, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000850, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000852, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000260, Set: 0x1, Miss, Tag: 0x0000001  
Address: 0x00000074, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000843, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000764, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000874, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000278, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000115, Set: 0x4, Miss, Tag: 0x0000000  
Address: 0x00000289, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000747, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000379, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000125, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000398, Set: 0x6, Miss, Tag: 0x0000001  
Address: 0x00000972, Set: 0x5, Miss, Tag: 0x0000004  
Address: 0x00000950, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000496, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000088, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000221, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000875, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000650, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000669, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000305, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000702, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000095, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000988, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000469, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000193, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000454, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000911, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000004, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00000280, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000739, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000264, Set: 0x1, Miss, Tag: 0x0000001  
Address: 0x00000355, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000559, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000004, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000205, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000837, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000119, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000495, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000560, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000499, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000620, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000958, Set: 0x5, Hit, Tag: 0x0000004

```
Address: 0x00000447, Set: 0x1, Hit, Tag: 0x0000002
Address: 0x00000546, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000430, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x00000535, Set: 0x4, Miss, Tag: 0x0000002
Address: 0x00000767, Set: 0x5, Miss, Tag: 0x0000003
Address: 0x00000281, Set: 0x2, Hit, Tag: 0x0000001
Address: 0x00000161, Set: 0x5, Hit, Tag: 0x0000000
Address: 0x00000412, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x00000586, Set: 0x6, Hit, Tag: 0x0000002
Address: 0x00000863, Set: 0x1, Hit, Tag: 0x0000004
Address: 0x00000508, Set: 0x4, Hit, Tag: 0x0000002
Address: 0x00000550, Set: 0x5, Miss, Tag: 0x0000002
Address: 0x00000308, Set: 0x4, Hit, Tag: 0x0000001
Address: 0x00000701, Set: 0x4, Miss, Tag: 0x0000003
Address: 0x00001005, Set: 0x0, Hit, Tag: 0x0000008
Address: 0x00000196, Set: 0x6, Hit, Tag: 0x0000000
Address: 0x00000705, Set: 0x4, Hit, Tag: 0x0000003
Address: 0x00000261, Set: 0x1, Hit, Tag: 0x0000001
Address: 0x00000935, Set: 0x4, Hit, Tag: 0x0000004
Address: 0x00000969, Set: 0x5, Hit, Tag: 0x0000004
Address: 0x00000616, Set: 0x0, Hit, Tag: 0x0000003
Address: 0x00000470, Set: 0x1, Hit, Tag: 0x0000002
Address: 0x00000974, Set: 0x5, Hit, Tag: 0x0000004
Address: 0x00000822, Set: 0x0, Hit, Tag: 0x0000004
Address: 0x00000283, Set: 0x2, Hit, Tag: 0x0000001
Address: 0x00000069, Set: 0x1, Hit, Tag: 0x0000000
Address: 0x00000293, Set: 0x2, Hit, Tag: 0x0000001
Address: 0x00000843, Set: 0x1, Hit, Tag: 0x0000004
Address: 0x00000568, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000913, Set: 0x4, Hit, Tag: 0x0000004
Address: 0x00000777, Set: 0x5, Hit, Tag: 0x0000003
Address: 0x00001015, Set: 0x0, Hit, Tag: 0x0000008
Address: 0x00000435, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x00000183, Set: 0x6, Hit, Tag: 0x0000000
Address: 0x00000526, Set: 0x4, Hit, Tag: 0x0000002
Address: 0x00000178, Set: 0x5, Hit, Tag: 0x0000000
Address: 0x00000465, Set: 0x1, Hit, Tag: 0x0000002
Address: 0x00000687, Set: 0x2, Hit, Tag: 0x0000003
Address: 0x00000590, Set: 0x6, Hit, Tag: 0x0000002
Address: 0x00000027, Set: 0x0, Miss, Tag: 0x0000000
Address: 0x00000527, Set: 0x4, Hit, Tag: 0x0000002
Address: 0x00000074, Set: 0x1, Hit, Tag: 0x0000000
Address: 0x00000578, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000835, Set: 0x0, Hit, Tag: 0x0000004
Address: 0x00000775, Set: 0x5, Hit, Tag: 0x0000003
Address: 0x00000559, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000007, Set: 0x0, Hit, Tag: 0x0000000
Address: 0x00000456, Set: 0x1, Hit, Tag: 0x0000002
Address: 0x00000820, Set: 0x0, Hit, Tag: 0x0000004
Address: 0x00000943, Set: 0x5, Hit, Tag: 0x0000004
Address: 0x00000402, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x00000413, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x00000389, Set: 0x6, Hit, Tag: 0x0000001
Address: 0x00000352, Set: 0x5, Miss, Tag: 0x0000001
```

Address: 0x00000211, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000673, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000421, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000504, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000492, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000990, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000393, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000246, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000981, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000828, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000429, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000484, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00001006, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00000894, Set: 0x2, Miss, Tag: 0x0000004  
Address: 0x00000147, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000572, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000922, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000674, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000647, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000476, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000486, Set: 0x2, Miss, Tag: 0x0000002  
Address: 0x00000398, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000011, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000493, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000855, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000831, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000412, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000233, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000220, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000802, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000585, Set: 0x6, Hit, Tag: 0x0000002  
Address: 0x00000431, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000451, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00001006, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00000935, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000943, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000972, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000304, Set: 0x4, Miss, Tag: 0x0000001  
Address: 0x00000165, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000930, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000108, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000595, Set: 0x6, Hit, Tag: 0x0000002  
Address: 0x00000390, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000090, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000465, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000537, Set: 0x4, Miss, Tag: 0x0000002  
Address: 0x00000663, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000363, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000188, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000286, Set: 0x2, Miss, Tag: 0x0000001  
Address: 0x00000839, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000674, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000684, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000850, Set: 0x1, Hit, Tag: 0x0000004



Address: 0x00000143, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000515, Set: 0x4, Hit, Tag: 0x000002  
Address: 0x00000658, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000556, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000748, Set: 0x5, Miss, Tag: 0x000003  
Address: 0x00000878, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000334, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00000309, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00000286, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000785, Set: 0x6, Miss, Tag: 0x000003  
Address: 0x00000292, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000197, Set: 0x6, Hit, Tag: 0x000000  
Address: 0x00000704, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000240, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000502, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000870, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000146, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000610, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00000441, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000536, Set: 0x4, Hit, Tag: 0x000002  
Address: 0x00000701, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000906, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000050, Set: 0x1, Miss, Tag: 0x000000  
Address: 0x00000340, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000246, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000238, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000626, Set: 0x0, Hit, Tag: 0x000003  
Address: 0x00000061, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000912, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000286, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000912, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000031, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000802, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000546, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000587, Set: 0x6, Hit, Tag: 0x000002  
Address: 0x00000526, Set: 0x4, Hit, Tag: 0x000002  
Address: 0x00000400, Set: 0x0, Miss, Tag: 0x000002  
Address: 0x00000921, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000836, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000686, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000682, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000104, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00000884, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000363, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000344, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000362, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000209, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000491, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00000972, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00000650, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00000003, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000649, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000532, Set: 0x4, Hit, Tag: 0x000002  
Address: 0x00000053, Set: 0x1, Hit, Tag: 0x000000

Address: 0x00000989, Set: 0x6, Hit, Tag: 0x000004  
Address: 0x00000778, Set: 0x5, Hit, Tag: 0x000003  
Address: 0x00000291, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000591, Set: 0x6, Hit, Tag: 0x000002  
Address: 0x00000840, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000179, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000878, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000728, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000211, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00000656, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000250, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000798, Set: 0x6, Hit, Tag: 0x000003  
Address: 0x00000158, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000650, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000696, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000994, Set: 0x6, Hit, Tag: 0x000004  
Address: 0x00000313, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00000354, Set: 0x5, Miss, Tag: 0x000001  
Address: 0x00000074, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000173, Set: 0x5, Hit, Tag: 0x000000  
Address: 0x00000717, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000419, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000535, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000926, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000910, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000483, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00000552, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000913, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000109, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00000061, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000967, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00000074, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000839, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000234, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000666, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000655, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000414, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000520, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000359, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000625, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00000152, Set: 0x5, Miss, Tag: 0x000000  
Address: 0x00000609, Set: 0x0, Hit, Tag: 0x000003  
Address: 0x00000399, Set: 0x6, Miss, Tag: 0x000001  
Address: 0x00000310, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00000236, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00000071, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000281, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000549, Set: 0x5, Hit, Tag: 0x000002  
Address: 0x00000426, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000355, Set: 0x5, Hit, Tag: 0x000001  
Address: 0x00000722, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000119, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00000774, Set: 0x5, Miss, Tag: 0x000003  
Address: 0x00000233, Set: 0x0, Hit, Tag: 0x000001

```
Address: 0x00000022, Set: 0x0, Miss, Tag: 0x000000
Address: 0x00000660, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000716, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000574, Set: 0x5, Hit, Tag: 0x000002
Address: 0x00000550, Set: 0x5, Hit, Tag: 0x000002
Address: 0x00000825, Set: 0x0, Miss, Tag: 0x000004
Address: 0x00000635, Set: 0x0, Hit, Tag: 0x000003
Address: 0x00000493, Set: 0x2, Hit, Tag: 0x000002
Address: 0x00000900, Set: 0x4, Miss, Tag: 0x000004
Address: 0x00000451, Set: 0x1, Miss, Tag: 0x000002
Address: 0x00000727, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000542, Set: 0x5, Hit, Tag: 0x000002
Address: 0x00000082, Set: 0x2, Miss, Tag: 0x000000
Address: 0x00000117, Set: 0x4, Hit, Tag: 0x000000
Address: 0x00000038, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00000442, Set: 0x1, Hit, Tag: 0x000002
Address: 0x00000742, Set: 0x5, Hit, Tag: 0x000003
Address: 0x00000190, Set: 0x6, Hit, Tag: 0x000000
Address: 0x00000027, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00000118, Set: 0x4, Hit, Tag: 0x000000
Address: 0x00000500, Set: 0x4, Hit, Tag: 0x000002
Address: 0x00000263, Set: 0x1, Miss, Tag: 0x000001
Address: 0x00000189, Set: 0x6, Hit, Tag: 0x000000
Address: 0x00000781, Set: 0x6, Hit, Tag: 0x000003
Address: 0x00000812, Set: 0x0, Hit, Tag: 0x000004
Address: 0x00000615, Set: 0x0, Hit, Tag: 0x000003
Address: 0x00000113, Set: 0x4, Hit, Tag: 0x000000
Address: 0x00000510, Set: 0x4, Hit, Tag: 0x000002
Address: 0x00000735, Set: 0x4, Hit, Tag: 0x000003
Address: 0x00000887, Set: 0x2, Hit, Tag: 0x000004
Address: 0x00000743, Set: 0x5, Hit, Tag: 0x000003
Address: 0x00000757, Set: 0x5, Hit, Tag: 0x000003
Address: 0x00000524, Set: 0x4, Hit, Tag: 0x000002
Address: 0x00000436, Set: 0x0, Hit, Tag: 0x000002
Address: 0x00000307, Set: 0x4, Miss, Tag: 0x000001
Address: 0x00000050, Set: 0x1, Miss, Tag: 0x000000
Address: 0x00000237, Set: 0x0, Miss, Tag: 0x000001
Address: 0x00000943, Set: 0x5, Hit, Tag: 0x000004
```

## Test Case:

### Configuration:

```
2048
64
4
FIFO
WT
```

### Access sequences:



R: 708  
W: 5  
R: 200  
W: 507  
R: 386  
W: 403  
R: 25  
W: 890  
R: 641  
W: 548  
R: 286  
W: 479  
R: 256  
W: 134  
R: 671  
W: 79  
R: 188  
W: 311  
R: 354  
W: 895  
R: 62  
W: 166  
R: 676  
W: 34  
R: 577  
W: 134  
R: 940  
W: 990  
R: 718  
W: 858  
R: 913  
W: 402  
R: 864  
W: 89  
R: 910  
W: 226  
R: 492  
W: 935  
R: 93  
W: 110  
R: 459  
W: 379  
R: 589  
W: 715  
R: 513  
W: 237  
R: 794  
W: 701  
R: 548  
W: 125  
R: 572  
W: 611

R: 291  
W: 224  
R: 645  
W: 868  
R: 358  
W: 562  
R: 835  
W: 53  
R: 396  
W: 724  
R: 455  
W: 236  
R: 814  
W: 341  
R: 463  
W: 282  
R: 252  
W: 556  
R: 392  
W: 711  
R: 935  
W: 982  
R: 403  
W: 425  
R: 195  
W: 173  
R: 102  
W: 743  
R: 298  
W: 675  
R: 330  
W: 589  
R: 899  
W: 976  
R: 434  
W: 234  
R: 514  
W: 245  
R: 287  
W: 910  
R: 969  
W: 742  
R: 123  
W: 759  
R: 60  
W: 586  
R: 18  
W: 312  
R: 118  
W: 410  
R: 0  
W: 29  
R: 368  
W: 403

R: 454  
W: 563  
R: 576  
W: 557  
R: 283  
W: 875  
R: 208  
W: 613  
R: 440  
W: 83  
R: 565  
W: 874  
R: 317  
W: 55  
R: 95  
W: 604  
R: 966  
W: 41  
R: 323  
W: 65  
R: 800  
W: 383  
R: 651  
W: 818  
R: 695  
W: 769  
R: 205  
W: 695  
R: 798  
W: 573  
R: 74  
W: 229  
R: 113  
W: 651  
R: 786  
W: 396  
R: 502  
W: 994  
R: 1009  
W: 942  
R: 53  
W: 551  
R: 793  
W: 371  
R: 606  
W: 888  
R: 975  
W: 548  
R: 929  
W: 274  
R: 613  
W: 706  
R: 657  
W: 240

R: 500  
W: 329  
R: 1009  
W: 705  
R: 0  
W: 784  
R: 255  
W: 75  
R: 1013  
W: 368  
R: 726  
W: 775  
R: 764  
W: 204  
R: 745  
W: 749  
R: 122  
W: 798  
R: 276  
W: 915  
R: 145  
W: 883  
R: 780  
W: 97  
R: 407  
W: 685  
R: 371  
W: 1021  
R: 367  
W: 5  
R: 237  
W: 868  
R: 334  
W: 223  
R: 549  
W: 334  
R: 1007  
W: 804  
R: 409  
W: 996  
R: 148  
W: 111  
R: 747  
W: 912  
R: 315  
W: 468  
R: 638  
W: 438  
R: 242  
W: 914  
R: 329  
W: 388  
R: 773  
W: 85

R: 485  
W: 157  
R: 771  
W: 856  
R: 154  
W: 114  
R: 861  
W: 391  
R: 982  
W: 171  
R: 614  
W: 508  
R: 506  
W: 597  
R: 288  
W: 915  
R: 569  
W: 437  
R: 3  
W: 292  
R: 325  
W: 318  
R: 760  
W: 963  
R: 756  
W: 1003  
R: 854  
W: 62  
R: 367  
W: 603  
R: 147  
W: 852  
R: 760  
W: 918  
R: 684  
W: 914  
R: 9  
W: 522  
R: 282  
W: 991  
R: 693  
W: 896  
R: 475  
W: 175  
R: 470  
W: 764  
R: 67  
W: 15  
R: 177  
W: 70  
R: 308  
W: 502  
R: 388  
W: 44

R: 442  
W: 121  
R: 23  
W: 272  
R: 183  
W: 390  
R: 875  
W: 330  
R: 218  
W: 612  
R: 225  
W: 903  
R: 502  
W: 234  
R: 401  
W: 784  
R: 201  
W: 70  
R: 657  
W: 677  
R: 246  
W: 103  
R: 417  
W: 313  
R: 118  
W: 594  
R: 383  
W: 426  
R: 72  
W: 771  
R: 471  
W: 514  
R: 892  
W: 494  
R: 786  
W: 51  
R: 885  
W: 638  
R: 382  
W: 79  
R: 226  
W: 607  
R: 982  
W: 728  
R: 841  
W: 359  
R: 489  
W: 18  
R: 430  
W: 122  
R: 695  
W: 676  
R: 225  
W: 88

R: 989  
W: 343  
R: 682  
W: 348  
R: 770  
W: 755  
R: 95  
W: 217  
R: 245  
W: 988  
R: 711  
W: 8  
R: 15  
W: 572  
R: 646  
W: 397  
R: 652  
W: 872  
R: 1004  
W: 610  
R: 576  
W: 821  
R: 970  
W: 41  
R: 840  
W: 376  
R: 163  
W: 511  
R: 28  
W: 388  
R: 600  
W: 1017  
R: 732  
W: 258  
R: 341  
W: 478  
R: 1013  
W: 436  
R: 695  
W: 235  
R: 400  
W: 382  
R: 243  
W: 416  
R: 955  
W: 889  
R: 813  
W: 583  
R: 737  
W: 794  
R: 169  
W: 289  
R: 591  
W: 115

R: 331  
W: 407  
R: 491  
W: 494  
R: 919  
W: 519  
R: 883  
W: 495  
R: 512  
W: 591  
R: 753  
W: 853  
R: 45  
W: 743  
R: 266  
W: 740  
R: 978  
W: 666  
R: 98  
W: 197  
R: 58  
W: 29  
R: 62  
W: 872  
R: 612  
W: 799  
R: 642  
W: 782  
R: 64  
W: 209  
R: 897  
W: 395  
R: 617  
W: 365  
R: 890  
W: 512  
R: 884  
W: 749  
R: 1007  
W: 373  
R: 316  
W: 736  
R: 202  
W: 361  
R: 455  
W: 468  
R: 77  
W: 409  
R: 111  
W: 175  
R: 606  
W: 169  
R: 205  
W: 668



R: 17  
W: 817  
R: 443  
W: 659  
R: 575  
W: 508  
R: 869  
W: 449  
R: 903  
W: 462  
R: 814  
W: 769  
R: 974  
W: 674  
R: 494  
W: 957  
R: 23  
W: 810  
R: 669  
W: 226  
R: 147  
W: 101  
R: 694  
W: 224  
R: 510  
W: 805  
R: 400  
W: 93  
R: 975  
W: 605  
R: 761  
W: 992  
R: 398  
W: 181  
R: 628  
W: 974  
R: 689  
W: 473  
R: 399  
W: 568  
R: 935  
W: 189  
R: 314  
W: 885  
R: 863  
W: 808  
R: 818  
W: 887  
R: 595  
W: 463  
R: 89  
W: 742  
R: 564  
W: 783

R: 967  
W: 51  
R: 565  
W: 343  
R: 144  
W: 516  
R: 948  
W: 905  
R: 484  
W: 322  
R: 62  
W: 88  
R: 272  
W: 751  
R: 561  
W: 671

## Output:

Address: 0x00000708, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000005, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000200, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000507, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000386, Set: 0x6, Miss, Tag: 0x000001  
Address: 0x00000403, Set: 0x0, Miss, Tag: 0x000002  
Address: 0x00000025, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000890, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000641, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00000548, Set: 0x5, Miss, Tag: 0x000002  
Address: 0x00000286, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00000479, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000256, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00000134, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00000671, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000079, Set: 0x1, Miss, Tag: 0x000000  
Address: 0x00000188, Set: 0x6, Miss, Tag: 0x000000  
Address: 0x00000311, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00000354, Set: 0x5, Miss, Tag: 0x000001  
Address: 0x00000895, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000062, Set: 0x1, Miss, Tag: 0x000000  
Address: 0x00000166, Set: 0x5, Miss, Tag: 0x000000  
Address: 0x00000676, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000034, Set: 0x0, Hit, Tag: 0x000000  
Address: 0x00000577, Set: 0x5, Miss, Tag: 0x000002  
Address: 0x00000134, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00000940, Set: 0x5, Miss, Tag: 0x000004  
Address: 0x00000990, Set: 0x6, Miss, Tag: 0x000004  
Address: 0x00000718, Set: 0x4, Hit, Tag: 0x000003  
Address: 0x00000858, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00000913, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00000402, Set: 0x0, Miss, Tag: 0x000002

Address: 0x00000864, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000089, Set: 0x2, Miss, Tag: 0x0000000  
Address: 0x00000910, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000226, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000492, Set: 0x2, Miss, Tag: 0x0000002  
Address: 0x00000935, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000093, Set: 0x2, Miss, Tag: 0x0000000  
Address: 0x00000110, Set: 0x4, Miss, Tag: 0x0000000  
Address: 0x00000459, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000379, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000589, Set: 0x6, Miss, Tag: 0x0000002  
Address: 0x00000715, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000513, Set: 0x4, Miss, Tag: 0x0000002  
Address: 0x00000237, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000794, Set: 0x6, Miss, Tag: 0x0000003  
Address: 0x00000701, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000548, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000125, Set: 0x4, Miss, Tag: 0x0000000  
Address: 0x00000572, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000611, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000291, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000224, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000645, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000868, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000358, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000562, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000835, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000053, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000396, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000724, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000455, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000236, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000814, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000341, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000463, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000282, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000252, Set: 0x1, Miss, Tag: 0x0000001  
Address: 0x00000556, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000392, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000711, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000935, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000982, Set: 0x6, Miss, Tag: 0x0000004  
Address: 0x00000403, Set: 0x0, Miss, Tag: 0x0000002  
Address: 0x00000425, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000195, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000173, Set: 0x5, Miss, Tag: 0x0000000  
Address: 0x00000102, Set: 0x4, Miss, Tag: 0x0000000  
Address: 0x00000743, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000298, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000675, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000330, Set: 0x4, Miss, Tag: 0x0000001  
Address: 0x00000589, Set: 0x6, Hit, Tag: 0x0000002  
Address: 0x00000899, Set: 0x2, Miss, Tag: 0x0000004  
Address: 0x00000976, Set: 0x5, Hit, Tag: 0x0000004

Address: 0x00000434, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000234, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000514, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000245, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000287, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000910, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000969, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000742, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000123, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000759, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000060, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00000586, Set: 0x6, Hit, Tag: 0x0000002  
Address: 0x00000018, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000312, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000118, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000410, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000000, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000029, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000368, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000403, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000454, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000563, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000576, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000557, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000283, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000875, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000208, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000613, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000440, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000083, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000565, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000874, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000317, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000055, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000095, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000604, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000966, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000041, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000323, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000065, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000800, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000383, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000651, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000818, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000695, Set: 0x2, Miss, Tag: 0x0000003  
Address: 0x00000769, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000205, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000695, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000798, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000573, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000074, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000229, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000113, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000651, Set: 0x1, Hit, Tag: 0x0000003

Address: 0x00000786, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000396, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000502, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000994, Set: 0x6, Miss, Tag: 0x0000004  
Address: 0x00001009, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00000942, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000053, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000551, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000793, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000371, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000606, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000888, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000975, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000548, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000929, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000274, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000613, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000706, Set: 0x4, Miss, Tag: 0x0000003  
Address: 0x00000657, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000240, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000500, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000329, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00001009, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000705, Set: 0x4, Miss, Tag: 0x0000003  
Address: 0x00000000, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00000784, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000255, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000075, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00001013, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000368, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000726, Set: 0x4, Miss, Tag: 0x0000003  
Address: 0x00000775, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000764, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000204, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000745, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000749, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000122, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000798, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000276, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000915, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000145, Set: 0x5, Miss, Tag: 0x0000000  
Address: 0x00000883, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000780, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000097, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000407, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000685, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000371, Set: 0x5, Miss, Tag: 0x0000001  
Address: 0x00001021, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000367, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000005, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000237, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000868, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000334, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000223, Set: 0x0, Hit, Tag: 0x0000001

Address: 0x00000549, Set: 0x5, Miss, Tag: 0x0000002  
Address: 0x00000334, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00001007, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000804, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000409, Set: 0x0, Miss, Tag: 0x0000002  
Address: 0x00000996, Set: 0x6, Miss, Tag: 0x0000004  
Address: 0x00000148, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000111, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000747, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000912, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000315, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000468, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000638, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000438, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000242, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000914, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000329, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000388, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000773, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000085, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000485, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000157, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000771, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000856, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000154, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000114, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000861, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000391, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000982, Set: 0x6, Miss, Tag: 0x0000004  
Address: 0x00000171, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000614, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000508, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000506, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000597, Set: 0x6, Hit, Tag: 0x0000002  
Address: 0x00000288, Set: 0x2, Miss, Tag: 0x0000001  
Address: 0x00000915, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000569, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000437, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000003, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000292, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000325, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000318, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000760, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000963, Set: 0x5, Miss, Tag: 0x0000004  
Address: 0x00000756, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00001003, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00000854, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000062, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000367, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000603, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000147, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000852, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000760, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000918, Set: 0x4, Miss, Tag: 0x0000004



Address: 0x00000684, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000914, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000009, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000522, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000282, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000991, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000693, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000896, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000475, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000175, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000470, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000764, Set: 0x5, Hit, Tag: 0x0000003  
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Address: 0x00000015, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000177, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000070, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000308, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000502, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000388, Set: 0x6, Miss, Tag: 0x0000001  
Address: 0x00000044, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000442, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000121, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000023, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000272, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000183, Set: 0x6, Miss, Tag: 0x0000000  
Address: 0x00000390, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000875, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000330, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000218, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000612, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000225, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000903, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000502, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000234, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000401, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000784, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000201, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000070, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000657, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000677, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000246, Set: 0x1, Miss, Tag: 0x0000001  
Address: 0x00000103, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000417, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000313, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000118, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000594, Set: 0x6, Miss, Tag: 0x0000002  
Address: 0x00000383, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000426, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000072, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00000771, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000471, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000514, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000892, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000494, Set: 0x2, Miss, Tag: 0x0000002

Address: 0x00000786, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000051, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000885, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000638, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000382, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000079, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000226, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000607, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000982, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000728, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000841, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00000359, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000489, Set: 0x2, Miss, Tag: 0x0000002  
Address: 0x00000018, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000430, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000122, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000695, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000676, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000225, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000088, Set: 0x2, Miss, Tag: 0x0000000  
Address: 0x00000989, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000343, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000682, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000348, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000770, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000755, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000095, Set: 0x2, Miss, Tag: 0x0000000  
Address: 0x00000217, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000245, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000988, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000711, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000008, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000015, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000572, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000646, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000397, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000652, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000872, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00001004, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00000610, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000576, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000821, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000970, Set: 0x5, Miss, Tag: 0x0000004  
Address: 0x00000041, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000840, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000376, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000163, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000511, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000028, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000388, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000600, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00001017, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000732, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000258, Set: 0x1, Hit, Tag: 0x0000001



Address: 0x00000341, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000478, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00001013, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000436, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000695, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000235, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000400, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000382, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000243, Set: 0x1, Hit, Tag: 0x0000001  
Address: 0x00000416, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000955, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000889, Set: 0x2, Miss, Tag: 0x0000004  
Address: 0x00000813, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000583, Set: 0x6, Miss, Tag: 0x0000002  
Address: 0x00000737, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000794, Set: 0x6, Hit, Tag: 0x0000003  
Address: 0x00000169, Set: 0x5, Hit, Tag: 0x0000000  
Address: 0x00000289, Set: 0x2, Hit, Tag: 0x0000001  
Address: 0x00000591, Set: 0x6, Miss, Tag: 0x0000002  
Address: 0x00000115, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000331, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000407, Set: 0x0, Hit, Tag: 0x0000002  
Address: 0x00000491, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000494, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000919, Set: 0x4, Miss, Tag: 0x0000004  
Address: 0x00000519, Set: 0x4, Miss, Tag: 0x0000002  
Address: 0x00000883, Set: 0x2, Miss, Tag: 0x0000004  
Address: 0x00000495, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000512, Set: 0x4, Miss, Tag: 0x0000002  
Address: 0x00000591, Set: 0x6, Hit, Tag: 0x0000002  
Address: 0x00000753, Set: 0x5, Miss, Tag: 0x0000003  
Address: 0x00000853, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000045, Set: 0x1, Hit, Tag: 0x0000000  
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Address: 0x00000197, Set: 0x6, Hit, Tag: 0x0000000  
Address: 0x00000058, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000029, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00000062, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000872, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000612, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000799, Set: 0x6, Miss, Tag: 0x0000003  
Address: 0x00000642, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00000782, Set: 0x6, Miss, Tag: 0x0000003  
Address: 0x00000064, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000209, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000897, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000395, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000617, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000365, Set: 0x5, Hit, Tag: 0x0000001

Address: 0x00000890, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000512, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000884, Set: 0x2, Hit, Tag: 0x0000004  
Address: 0x00000749, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00001007, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000373, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000316, Set: 0x4, Hit, Tag: 0x0000001  
Address: 0x00000736, Set: 0x4, Hit, Tag: 0x0000003  
Address: 0x00000202, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000361, Set: 0x5, Hit, Tag: 0x0000001  
Address: 0x00000455, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000468, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000077, Set: 0x1, Hit, Tag: 0x0000000  
Address: 0x00000409, Set: 0x0, Miss, Tag: 0x0000002  
Address: 0x00000111, Set: 0x4, Miss, Tag: 0x0000000  
Address: 0x00000175, Set: 0x5, Miss, Tag: 0x0000000  
Address: 0x00000606, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000169, Set: 0x5, Miss, Tag: 0x0000000  
Address: 0x00000205, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000668, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000017, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00000817, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000443, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000659, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000575, Set: 0x5, Hit, Tag: 0x0000002  
Address: 0x00000508, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000869, Set: 0x1, Hit, Tag: 0x0000004  
Address: 0x00000449, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000903, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00000462, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00000814, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000769, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000974, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000674, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000494, Set: 0x2, Hit, Tag: 0x0000002  
Address: 0x00000957, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000023, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000810, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000669, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000226, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000147, Set: 0x5, Miss, Tag: 0x0000000  
Address: 0x00000101, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00000694, Set: 0x2, Miss, Tag: 0x0000003  
Address: 0x00000224, Set: 0x0, Hit, Tag: 0x0000001  
Address: 0x00000510, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000805, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000400, Set: 0x0, Miss, Tag: 0x0000002  
Address: 0x00000093, Set: 0x2, Hit, Tag: 0x0000000  
Address: 0x00000975, Set: 0x5, Hit, Tag: 0x0000004  
Address: 0x00000605, Set: 0x0, Miss, Tag: 0x0000003  
Address: 0x00000761, Set: 0x5, Hit, Tag: 0x0000003  
Address: 0x00000992, Set: 0x6, Hit, Tag: 0x0000004  
Address: 0x00000398, Set: 0x6, Hit, Tag: 0x0000001  
Address: 0x00000181, Set: 0x6, Hit, Tag: 0x0000000

```
Address: 0x00000628, Set: 0x0, Miss, Tag: 0x0000003
Address: 0x00000974, Set: 0x5, Hit, Tag: 0x0000004
Address: 0x00000689, Set: 0x2, Hit, Tag: 0x0000003
Address: 0x00000473, Set: 0x1, Hit, Tag: 0x0000002
Address: 0x00000399, Set: 0x6, Hit, Tag: 0x0000001
Address: 0x00000568, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000935, Set: 0x4, Hit, Tag: 0x0000004
Address: 0x00000189, Set: 0x6, Hit, Tag: 0x0000000
Address: 0x00000314, Set: 0x4, Miss, Tag: 0x0000001
Address: 0x00000885, Set: 0x2, Hit, Tag: 0x0000004
Address: 0x00000863, Set: 0x1, Hit, Tag: 0x0000004
Address: 0x00000808, Set: 0x0, Miss, Tag: 0x0000004
Address: 0x00000818, Set: 0x0, Miss, Tag: 0x0000004
Address: 0x00000887, Set: 0x2, Hit, Tag: 0x0000004
Address: 0x00000595, Set: 0x6, Hit, Tag: 0x0000002
Address: 0x00000463, Set: 0x1, Hit, Tag: 0x0000002
Address: 0x00000089, Set: 0x2, Hit, Tag: 0x0000000
Address: 0x00000742, Set: 0x5, Hit, Tag: 0x0000003
Address: 0x00000564, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000783, Set: 0x6, Miss, Tag: 0x0000003
Address: 0x00000967, Set: 0x5, Hit, Tag: 0x0000004
Address: 0x00000051, Set: 0x1, Hit, Tag: 0x0000000
Address: 0x00000565, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000343, Set: 0x5, Miss, Tag: 0x0000001
Address: 0x00000144, Set: 0x5, Hit, Tag: 0x0000000
Address: 0x00000516, Set: 0x4, Hit, Tag: 0x0000002
Address: 0x00000948, Set: 0x5, Hit, Tag: 0x0000004
Address: 0x00000905, Set: 0x4, Hit, Tag: 0x0000004
Address: 0x00000484, Set: 0x2, Hit, Tag: 0x0000002
Address: 0x00000322, Set: 0x4, Hit, Tag: 0x0000001
Address: 0x00000062, Set: 0x1, Hit, Tag: 0x0000000
Address: 0x00000088, Set: 0x2, Hit, Tag: 0x0000000
Address: 0x00000272, Set: 0x1, Miss, Tag: 0x0000001
Address: 0x00000751, Set: 0x5, Hit, Tag: 0x0000003
Address: 0x00000561, Set: 0x5, Hit, Tag: 0x0000002
Address: 0x00000671, Set: 0x1, Hit, Tag: 0x0000003
```

## Test Case:

### Configuration:

```
2048
32
4
FIFO
WT
```

### Access sequences:

R: 1804  
W: 1174  
R: 1545  
W: 1604  
R: 381  
W: 1455  
R: 1753  
W: 402  
R: 503  
W: 854  
R: 1130  
W: 1091  
R: 532  
W: 700  
R: 1729  
W: 667  
R: 1705  
W: 799  
R: 1746  
W: 1799  
R: 502  
W: 205  
R: 384  
W: 719  
R: 1415  
W: 599  
R: 600  
W: 1599  
R: 1702  
W: 1510  
R: 1073  
W: 1458  
R: 636  
W: 571  
R: 1014  
W: 1017  
R: 2026  
W: 719  
R: 1419  
W: 482  
R: 1573  
W: 502  
R: 1573  
W: 57  
R: 1202  
W: 1254  
R: 724  
W: 860  
R: 5  
W: 423  
R: 611  
W: 508  
R: 628

W: 996  
R: 1227  
W: 2044  
R: 1595  
W: 1827  
R: 1595  
W: 1249  
R: 1289  
W: 620  
R: 659  
W: 1925  
R: 1191  
W: 1673  
R: 894  
W: 1170  
R: 344  
W: 266  
R: 1652  
W: 1917  
R: 768  
W: 1177  
R: 1974  
W: 1970  
R: 383  
W: 650  
R: 782  
W: 389  
R: 1073  
W: 1394  
R: 897  
W: 1702  
R: 342  
W: 76  
R: 1698  
W: 1937  
R: 1904  
W: 1245  
R: 1138  
W: 1145  
R: 1865  
W: 1797  
R: 1023  
W: 1009  
R: 1422  
W: 1917  
R: 131  
W: 1766  
R: 135  
W: 1783  
R: 1635  
W: 903  
R: 912  
W: 1561  
R: 826

W: 1295  
R: 163  
W: 1608  
R: 1684  
W: 1237  
R: 954  
W: 533  
R: 891  
W: 1296  
R: 610  
W: 541  
R: 1185  
W: 466  
R: 1786  
W: 275  
R: 1611  
W: 1603  
R: 24  
W: 586  
R: 564  
W: 1446  
R: 456  
W: 695  
R: 1164  
W: 591  
R: 430  
W: 751  
R: 1495  
W: 1342  
R: 264  
W: 273  
R: 590  
W: 428  
R: 1881  
W: 226  
R: 1665  
W: 788  
R: 760  
W: 508  
R: 36  
W: 1370  
R: 1049  
W: 1222  
R: 1836  
W: 787  
R: 1497  
W: 1399  
R: 342  
W: 1522  
R: 1986  
W: 907  
R: 920  
W: 394  
R: 1602

W: 37  
R: 985  
W: 2033  
R: 788  
W: 432  
R: 1327  
W: 1053  
R: 705  
W: 1917  
R: 1481  
W: 539  
R: 96  
W: 1098  
R: 1327  
W: 856  
R: 1606  
W: 1363  
R: 178  
W: 607  
R: 537  
W: 2014  
R: 1394  
W: 2035  
R: 1365  
W: 1736  
R: 1509  
W: 1303  
R: 595  
W: 381  
R: 1697  
W: 150  
R: 418  
W: 635  
R: 135  
W: 1207  
R: 1067  
W: 1462  
R: 212  
W: 1773  
R: 1332  
W: 1693  
R: 264  
W: 1428  
R: 743  
W: 1591  
R: 236  
W: 301  
R: 906  
W: 414  
R: 908  
W: 1444  
R: 380  
W: 254  
R: 1431

W: 1745  
R: 1990  
W: 892  
R: 1001  
W: 538  
R: 1273  
W: 650  
R: 688  
W: 1692  
R: 1285  
W: 823  
R: 851  
W: 305  
R: 237  
W: 1063  
R: 30  
W: 1569  
R: 708  
W: 294  
R: 949  
W: 1451  
R: 1885  
W: 1185  
R: 1752  
W: 743  
R: 1599  
W: 612  
R: 139  
W: 1979  
R: 866  
W: 1570  
R: 1677  
W: 808  
R: 414  
W: 630  
R: 1346  
W: 1688  
R: 1280  
W: 2034  
R: 1332  
W: 518  
R: 809  
W: 135  
R: 823  
W: 1047  
R: 1198  
W: 853  
R: 568  
W: 1906  
R: 1147  
W: 1518  
R: 1309  
W: 984  
R: 655



W: 1013  
R: 1727  
W: 207  
R: 1625  
W: 1867  
R: 138  
W: 443  
R: 1389  
W: 1815  
R: 1251  
W: 1804  
R: 397  
W: 550  
R: 1444  
W: 1678  
R: 536  
W: 728  
R: 148  
W: 1346  
R: 863  
W: 971  
R: 345  
W: 13  
R: 1824  
W: 913  
R: 1919  
W: 923  
R: 383  
W: 1180  
R: 1907  
W: 1039  
R: 145  
W: 1586  
R: 1246  
W: 1770  
R: 1405  
W: 1384  
R: 165  
W: 747  
R: 1152  
W: 1416  
R: 503  
W: 1549  
R: 1966  
W: 1947  
R: 1179  
W: 455  
R: 627  
W: 1327  
R: 1801  
W: 1490  
R: 250  
W: 98  
R: 1503

W: 26  
R: 1011  
W: 1374  
R: 949  
W: 1395  
R: 506  
W: 808  
R: 386  
W: 651  
R: 347  
W: 1632  
R: 373  
W: 1752  
R: 968  
W: 538  
R: 451  
W: 72  
R: 1954  
W: 954  
R: 1622  
W: 1873  
R: 853  
W: 753  
R: 280  
W: 1480  
R: 33  
W: 33  
R: 922  
W: 283  
R: 131  
W: 377  
R: 310  
W: 1142  
R: 1751  
W: 1259  
R: 489  
W: 209  
R: 20  
W: 875  
R: 860  
W: 367  
R: 459  
W: 1233  
R: 71  
W: 1428  
R: 1771  
W: 523  
R: 1500  
W: 1678  
R: 1477  
W: 1074  
R: 1503  
W: 283  
R: 1828

W: 1783  
R: 1763  
W: 1861  
R: 1816  
W: 638  
R: 96  
W: 1947  
R: 1015  
W: 406  
R: 1041  
W: 719  
R: 1666  
W: 1531  
R: 928  
W: 1686  
R: 358  
W: 1789  
R: 5  
W: 818  
R: 974  
W: 76  
R: 198  
W: 698  
R: 599  
W: 1698  
R: 328  
W: 29  
R: 725  
W: 1831  
R: 312  
W: 505  
R: 1566  
W: 27  
R: 318  
W: 1334  
R: 665  
W: 414  
R: 1233  
W: 1681  
R: 821  
W: 226  
R: 352  
W: 439  
R: 1757  
W: 1280  
R: 77  
W: 68  
R: 1021  
W: 82  
R: 886  
W: 1996  
R: 158  
W: 1084  
R: 646

W: 758  
R: 734  
W: 974  
R: 787  
W: 1459  
R: 757  
W: 1099  
R: 1964  
W: 275  
R: 1126  
W: 234  
R: 1609  
W: 1792  
R: 649  
W: 794  
R: 1425  
W: 1470  
R: 1020  
W: 1777  
R: 1909  
W: 730  
R: 1009  
W: 1986  
R: 798  
W: 2031  
R: 20  
W: 1684  
R: 1979  
W: 178  
R: 720  
W: 577  
R: 936  
W: 1454  
R: 1551  
W: 1723  
R: 866  
W: 260  
R: 774  
W: 782  
R: 535  
W: 1901  
R: 1017  
W: 96  
R: 1645  
W: 1666  
R: 890  
W: 1022  
R: 1088  
W: 1910  
R: 751  
W: 949  
R: 592  
W: 1760  
R: 887

W: 1390  
R: 1743  
W: 907  
R: 1026  
W: 1674  
R: 1085  
W: 1746  
R: 203  
W: 2022  
R: 1153  
W: 1754  
R: 1697  
W: 2019  
R: 2014  
W: 424  
R: 753  
W: 501  
R: 277  
W: 1770  
R: 597  
W: 1922  
R: 1388  
W: 1487  
R: 896  
W: 428  
R: 1350  
W: 1647  
R: 1377  
W: 1942  
R: 1359  
W: 216  
R: 1285  
W: 1055  
R: 1123  
W: 263  
R: 681  
W: 161  
R: 2010  
W: 885  
R: 135  
W: 1115  
R: 591  
W: 1832  
R: 1086  
W: 558  
R: 208  
W: 1839  
R: 1059  
W: 485  
R: 1562  
W: 1657  
R: 359  
W: 902  
R: 1096

W: 1255  
R: 1331  
W: 398  
R: 854  
W: 660  
R: 293  
W: 166  
R: 877  
W: 1578  
R: 1221  
W: 2000  
R: 1841  
W: 1902  
R: 113  
W: 1803  
R: 739  
W: 248  
R: 870  
W: 1331  
R: 33  
W: 1956  
R: 1889  
W: 241  
R: 1748  
W: 900  
R: 727  
W: 1262  
R: 509  
W: 1086  
R: 116  
W: 1606  
R: 294  
W: 1447  
R: 2004  
W: 1148  
R: 60  
W: 249  
R: 1314  
W: 937  
R: 1827  
W: 487  
R: 889  
W: 1621  
R: 342  
W: 1003  
R: 1376  
W: 1081  
R: 1251  
W: 199  
R: 364  
W: 1284  
R: 107  
W: 205  
R: 1526

W: 1855  
R: 1106  
W: 205  
R: 1069  
W: 1615  
R: 1291  
W: 1186  
R: 1173  
W: 1585  
R: 585  
W: 1130  
R: 686  
W: 645  
R: 1379  
W: 2000  
R: 1582  
W: 1159  
R: 440  
W: 424  
R: 732  
W: 782  
R: 1427  
W: 60  
R: 1863  
W: 630  
R: 259  
W: 180  
R: 1915  
W: 367  
R: 385  
W: 1393  
R: 174  
W: 1491  
R: 1598  
W: 1244  
R: 1059  
W: 841  
R: 382  
W: 184  
R: 379  
W: 967  
R: 1314  
W: 1065  
R: 1613  
W: 646  
R: 1017  
W: 1147  
R: 1805  
W: 1457  
R: 1571  
W: 489  
R: 191  
W: 950  
R: 549

W: 7  
R: 1581  
W: 809  
R: 187  
W: 1448  
R: 1176  
W: 572  
R: 793  
W: 1350  
R: 16  
W: 343  
R: 546  
W: 1075  
R: 1184  
W: 928  
R: 1259  
W: 1563  
R: 1896  
W: 526  
R: 580  
W: 1461  
R: 1172  
W: 1598  
R: 560  
W: 929  
R: 1007  
W: 84  
R: 1418  
W: 1199  
R: 1034  
W: 1967  
R: 1206  
W: 567  
R: 728  
W: 1393  
R: 2015  
W: 1904  
R: 1965  
W: 760  
R: 1207  
W: 1981  
R: 1103  
W: 1753  
R: 1008  
W: 240  
R: 634  
W: 220  
R: 1803  
W: 482  
R: 746  
W: 336  
R: 1943  
W: 1918  
R: 1934



W: 455  
R: 799  
W: 893  
R: 539  
W: 169  
R: 44  
W: 1574  
R: 88  
W: 1250  
R: 93  
W: 817  
R: 595  
W: 61  
R: 673  
W: 513  
R: 821  
W: 1880  
R: 446  
W: 1925  
R: 1586  
W: 1455  
R: 117  
W: 172  
R: 1675  
W: 1920  
R: 654  
W: 373  
R: 208  
W: 549  
R: 243  
W: 94  
R: 1004  
W: 1042  
R: 988  
W: 1544  
R: 1211  
W: 1032  
R: 1070  
W: 1299  
R: 235  
W: 1163  
R: 68  
W: 830  
R: 1224  
W: 742  
R: 1343  
W: 2046  
R: 574  
W: 1790  
R: 1923  
W: 112  
R: 1197  
W: 2040  
R: 284

W: 824  
R: 1912  
W: 938  
R: 1197  
W: 73  
R: 1487  
W: 1440  
R: 167  
W: 444  
R: 434  
W: 1155  
R: 1988  
W: 1645  
R: 140  
W: 1010  
R: 896  
W: 375  
R: 125  
W: 965  
R: 1205  
W: 1350  
R: 1707  
W: 501  
R: 1348  
W: 233  
R: 243  
W: 1223  
R: 346  
W: 1440  
R: 1215  
W: 630  
R: 216  
W: 1079  
R: 1569  
W: 1413  
R: 1152  
W: 1008  
R: 805  
W: 1320  
R: 1452  
W: 1239  
R: 427  
W: 1392  
R: 836  
W: 567  
R: 354  
W: 1732  
R: 942  
W: 480  
R: 649  
W: 100  
R: 1830  
W: 308  
R: 601

W: 1130  
R: 542  
W: 844  
R: 305  
W: 888  
R: 236  
W: 1520  
R: 1518  
W: 452  
R: 551  
W: 1039  
R: 1865  
W: 1704  
R: 0  
W: 622  
R: 976  
W: 1452  
R: 1861  
W: 1403  
R: 797  
W: 649  
R: 1971  
W: 1151  
R: 333  
W: 865  
R: 1631  
W: 983  
R: 965  
W: 1413  
R: 1291  
W: 1566  
R: 495  
W: 1833  
R: 362  
W: 800  
R: 673  
W: 598  
R: 272  
W: 144  
R: 1050  
W: 824  
R: 1183  
W: 867  
R: 480  
W: 1183  
R: 1489  
W: 1456  
R: 588  
W: 1302  
R: 811  
W: 1385  
R: 1951  
W: 734  
R: 488

W: 237  
R: 1600  
W: 72  
R: 1220  
W: 517  
R: 1485  
W: 463  
R: 36  
W: 1981  
R: 249  
W: 398  
R: 733  
W: 922  
R: 997  
W: 1006  
R: 1066  
W: 2047  
R: 1830  
W: 202  
R: 867  
W: 262  
R: 1385  
W: 308  
R: 1718  
W: 1973  
R: 1611  
W: 481  
R: 1310  
W: 1514  
R: 1216  
W: 1799  
R: 1751  
W: 768  
R: 1871  
W: 923  
R: 1285  
W: 1308  
R: 1387  
W: 1321  
R: 1241  
W: 1636  
R: 1720  
W: 1975  
R: 510  
W: 669  
R: 933  
W: 1577  
R: 668  
W: 715  
R: 1779  
W: 1535  
R: 977  
W: 1116  
R: 1844

W: 647  
R: 1042  
W: 1407  
R: 1128  
W: 304  
R: 873  
W: 296  
R: 55  
W: 577  
R: 1064  
W: 1926  
R: 1500  
W: 302  
R: 1187  
W: 839  
R: 1623  
W: 380  
R: 427  
W: 1295  
R: 307  
W: 938  
R: 1964  
W: 1240  
R: 467  
W: 585  
R: 1955  
W: 198  
R: 72  
W: 884  
R: 1314  
W: 1916  
R: 1531  
W: 308  
R: 1275  
W: 612  
R: 613  
W: 101  
R: 908  
W: 668  
R: 678  
W: 1973  
R: 547  
W: 130  
R: 227  
W: 1734  
R: 970  
W: 1850  
R: 66  
W: 1397  
R: 1098  
W: 374  
R: 287  
W: 1014  
R: 1614

```
W: 754
R: 1599
W: 1522
R: 952
W: 1672
R: 358
W: 219
R: 1540
W: 1890
R: 527
W: 768
R: 454
W: 1140
R: 869
W: 1362
R: 1809
W: 1547
R: 1287
W: 308
R: 1677
W: 1514
R: 2042
W: 599
R: 1317
W: 60
R: 1997
W: 367
R: 434
W: 236
```

## Output:

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Address: 0x00001804, Set: 0x0, Miss, Tag: 0x00000c
Address: 0x00001174, Set: 0xb, Miss, Tag: 0x000008
Address: 0x00001545, Set: 0xa, Miss, Tag: 0x00000a
Address: 0x00001604, Set: 0x0, Miss, Tag: 0x00000b
Address: 0x00000381, Set: 0xc, Miss, Tag: 0x000001
Address: 0x00001455, Set: 0x2, Miss, Tag: 0x00000a
Address: 0x00001753, Set: 0xa, Miss, Tag: 0x00000b
Address: 0x00000402, Set: 0x0, Miss, Tag: 0x000002
Address: 0x00000503, Set: 0x8, Miss, Tag: 0x000002
Address: 0x00000854, Set: 0x2, Miss, Tag: 0x000004
Address: 0x00001130, Set: 0x9, Miss, Tag: 0x000008
Address: 0x00001091, Set: 0x4, Miss, Tag: 0x000008
Address: 0x00000532, Set: 0x9, Miss, Tag: 0x000002
Address: 0x00000700, Set: 0x8, Miss, Tag: 0x000003
Address: 0x00001729, Set: 0x9, Miss, Tag: 0x00000b
Address: 0x00000667, Set: 0x3, Miss, Tag: 0x000003
Address: 0x00001705, Set: 0x8, Miss, Tag: 0x00000b
Address: 0x00000799, Set: 0xc, Miss, Tag: 0x000003
Address: 0x00001746, Set: 0xa, Hit, Tag: 0x00000b
```

Address: 0x00001799, Set: 0xc, Miss, Tag: 0x00000b  
Address: 0x00000502, Set: 0x8, Hit, Tag: 0x000002  
Address: 0x00000205, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000384, Set: 0xc, Hit, Tag: 0x000001  
Address: 0x00000719, Set: 0x8, Miss, Tag: 0x000003  
Address: 0x00001415, Set: 0x0, Miss, Tag: 0x00000a  
Address: 0x00000599, Set: 0xc, Miss, Tag: 0x000002  
Address: 0x00000600, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00001599, Set: 0xc, Miss, Tag: 0x00000a  
Address: 0x00001702, Set: 0x8, Hit, Tag: 0x00000b  
Address: 0x00001510, Set: 0x8, Miss, Tag: 0x00000a  
Address: 0x00001073, Set: 0x3, Miss, Tag: 0x000008  
Address: 0x00001458, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00000636, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00000571, Set: 0xb, Miss, Tag: 0x000002  
Address: 0x00001014, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00001017, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00002026, Set: 0x1, Miss, Tag: 0x000010  
Address: 0x00000719, Set: 0x8, Miss, Tag: 0x000003  
Address: 0x00001419, Set: 0x0, Hit, Tag: 0x00000a  
Address: 0x00000482, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00001573, Set: 0xb, Miss, Tag: 0x00000a  
Address: 0x00000502, Set: 0x8, Hit, Tag: 0x000002  
Address: 0x00001573, Set: 0xb, Hit, Tag: 0x00000a  
Address: 0x00000057, Set: 0x2, Miss, Tag: 0x000000  
Address: 0x00001202, Set: 0x0, Miss, Tag: 0x000009  
Address: 0x00001254, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00000724, Set: 0x9, Miss, Tag: 0x000003  
Address: 0x00000860, Set: 0x3, Miss, Tag: 0x000004  
Address: 0x00000005, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000423, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000611, Set: 0x0, Hit, Tag: 0x000003  
Address: 0x00000508, Set: 0x8, Hit, Tag: 0x000002  
Address: 0x00000628, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000996, Set: 0xc, Miss, Tag: 0x000004  
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Address: 0x00002044, Set: 0x2, Miss, Tag: 0x000010  
Address: 0x00001595, Set: 0xc, Miss, Tag: 0x00000a  
Address: 0x00001827, Set: 0x1, Miss, Tag: 0x00000c  
Address: 0x00001595, Set: 0xc, Hit, Tag: 0x00000a  
Address: 0x00001249, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00001289, Set: 0x4, Miss, Tag: 0x000009  
Address: 0x00000620, Set: 0x1, Hit, Tag: 0x000003  
Address: 0x00000659, Set: 0x2, Miss, Tag: 0x000003  
Address: 0x00001925, Set: 0x9, Miss, Tag: 0x00000c  
Address: 0x00001191, Set: 0xc, Miss, Tag: 0x000008  
Address: 0x00001673, Set: 0x3, Miss, Tag: 0x00000b  
Address: 0x00000894, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00001170, Set: 0xb, Miss, Tag: 0x000008  
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Address: 0x00000266, Set: 0x3, Miss, Tag: 0x000001  
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Address: 0x00001917, Set: 0x8, Miss, Tag: 0x00000c  
Address: 0x00000768, Set: 0xb, Miss, Tag: 0x000003

Address: 0x00001177, Set: 0xb, Miss, Tag: 0x0000008  
Address: 0x00001974, Set: 0xb, Miss, Tag: 0x000000c  
Address: 0x00001970, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00000383, Set: 0xc, Hit, Tag: 0x0000001  
Address: 0x00000650, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00000782, Set: 0xc, Miss, Tag: 0x0000003  
Address: 0x00000389, Set: 0xc, Hit, Tag: 0x0000001  
Address: 0x00001073, Set: 0x3, Hit, Tag: 0x0000008  
Address: 0x00001394, Set: 0xc, Miss, Tag: 0x0000009  
Address: 0x00000897, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00001702, Set: 0x8, Hit, Tag: 0x000000b  
Address: 0x00000342, Set: 0xa, Hit, Tag: 0x0000001  
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Address: 0x00001698, Set: 0x4, Miss, Tag: 0x000000b  
Address: 0x00001937, Set: 0x9, Miss, Tag: 0x000000c  
Address: 0x00001904, Set: 0x8, Miss, Tag: 0x000000c  
Address: 0x00001245, Set: 0x2, Miss, Tag: 0x0000009  
Address: 0x00001138, Set: 0x9, Hit, Tag: 0x0000008  
Address: 0x00001145, Set: 0xa, Miss, Tag: 0x0000008  
Address: 0x00001865, Set: 0x3, Miss, Tag: 0x000000c  
Address: 0x00001797, Set: 0xc, Miss, Tag: 0x000000b  
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Address: 0x00001009, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00001422, Set: 0x1, Miss, Tag: 0x000000a  
Address: 0x00001917, Set: 0x8, Hit, Tag: 0x000000c  
Address: 0x00000131, Set: 0x9, Miss, Tag: 0x0000000  
Address: 0x00001766, Set: 0xb, Miss, Tag: 0x000000b  
Address: 0x00000135, Set: 0x9, Hit, Tag: 0x0000000  
Address: 0x00001783, Set: 0xc, Miss, Tag: 0x000000b  
Address: 0x00001635, Set: 0x1, Miss, Tag: 0x000000b  
Address: 0x00000903, Set: 0x8, Miss, Tag: 0x0000004  
Address: 0x00000912, Set: 0x8, Miss, Tag: 0x0000004  
Address: 0x00001561, Set: 0xb, Hit, Tag: 0x000000a  
Address: 0x00000826, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00001295, Set: 0x4, Hit, Tag: 0x0000009  
Address: 0x00000163, Set: 0xb, Miss, Tag: 0x0000000  
Address: 0x00001608, Set: 0x0, Miss, Tag: 0x000000b  
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Address: 0x00000891, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00001296, Set: 0x4, Hit, Tag: 0x0000009  
Address: 0x00000610, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000541, Set: 0xa, Miss, Tag: 0x0000002  
Address: 0x00001185, Set: 0xc, Hit, Tag: 0x0000008  
Address: 0x00000466, Set: 0x3, Miss, Tag: 0x0000002  
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Address: 0x00001611, Set: 0x0, Miss, Tag: 0x000000b  
Address: 0x00001603, Set: 0x0, Hit, Tag: 0x000000b  
Address: 0x00000024, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00000586, Set: 0xc, Miss, Tag: 0x0000002  
Address: 0x00000564, Set: 0xb, Miss, Tag: 0x0000002



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Address: 0x00000695, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00001164, Set: 0xb, Miss, Tag: 0x000008  
Address: 0x00000591, Set: 0xc, Miss, Tag: 0x000002  
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Address: 0x00000751, Set: 0xa, Miss, Tag: 0x000003  
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Address: 0x00001342, Set: 0xa, Miss, Tag: 0x000009  
Address: 0x00000264, Set: 0x3, Miss, Tag: 0x000001  
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Address: 0x00001049, Set: 0x2, Miss, Tag: 0x000008  
Address: 0x00001222, Set: 0x1, Miss, Tag: 0x000009  
Address: 0x00001836, Set: 0x1, Miss, Tag: 0x00000c  
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Address: 0x00001497, Set: 0x4, Hit, Tag: 0x00000a  
Address: 0x00001399, Set: 0xc, Miss, Tag: 0x000009  
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Address: 0x00000394, Set: 0xc, Miss, Tag: 0x000001  
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Address: 0x00000537, Set: 0x9, Miss, Tag: 0x000002

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Address: 0x00000135, Set: 0x9, Hit, Tag: 0x000000  
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Address: 0x00001773, Set: 0xb, Miss, Tag: 0x00000b  
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Address: 0x00000414, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000908, Set: 0x8, Hit, Tag: 0x000004  
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Address: 0x00000254, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00001431, Set: 0x1, Miss, Tag: 0x00000a  
Address: 0x00001745, Set: 0xa, Hit, Tag: 0x00000b  
Address: 0x00001990, Set: 0xc, Miss, Tag: 0x00000c  
Address: 0x00000892, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00001001, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00000538, Set: 0x9, Hit, Tag: 0x000002  
Address: 0x00001273, Set: 0x3, Miss, Tag: 0x000009  
Address: 0x00000650, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000688, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00001692, Set: 0x4, Miss, Tag: 0x00000b  
Address: 0x00001285, Set: 0x4, Miss, Tag: 0x000009  
Address: 0x00000823, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00000851, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000305, Set: 0x8, Miss, Tag: 0x000001  
Address: 0x00000237, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00001063, Set: 0x3, Miss, Tag: 0x000008  
Address: 0x00000030, Set: 0x1, Miss, Tag: 0x000000  
Address: 0x00001569, Set: 0xb, Miss, Tag: 0x00000a  
Address: 0x00000708, Set: 0x8, Hit, Tag: 0x000003  
Address: 0x00000294, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00000949, Set: 0xa, Hit, Tag: 0x000004

Address: 0x00001451, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00001885, Set: 0x4, Hit, Tag: 0x00000c  
Address: 0x00001185, Set: 0xc, Miss, Tag: 0x000008  
Address: 0x00001752, Set: 0xa, Hit, Tag: 0x00000b  
Address: 0x00000743, Set: 0xa, Hit, Tag: 0x000003  
Address: 0x00001599, Set: 0xc, Miss, Tag: 0x00000a  
Address: 0x00000612, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00000139, Set: 0x9, Hit, Tag: 0x000000  
Address: 0x00001979, Set: 0xb, Miss, Tag: 0x00000c  
Address: 0x00000866, Set: 0x3, Miss, Tag: 0x000004  
Address: 0x00001570, Set: 0xb, Miss, Tag: 0x00000a  
Address: 0x00001677, Set: 0x3, Hit, Tag: 0x00000b  
Address: 0x00000808, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000414, Set: 0x0, Hit, Tag: 0x000002  
Address: 0x00000630, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00001346, Set: 0xa, Miss, Tag: 0x000009  
Address: 0x00001688, Set: 0x4, Miss, Tag: 0x00000b  
Address: 0x00001280, Set: 0x4, Hit, Tag: 0x000009  
Address: 0x00002034, Set: 0x1, Miss, Tag: 0x000010  
Address: 0x00001332, Set: 0x9, Hit, Tag: 0x000009  
Address: 0x00000518, Set: 0x8, Miss, Tag: 0x000002  
Address: 0x00000809, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000135, Set: 0x9, Hit, Tag: 0x000000  
Address: 0x00000823, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00001047, Set: 0x2, Hit, Tag: 0x000008  
Address: 0x00001198, Set: 0xc, Miss, Tag: 0x000008  
Address: 0x00000853, Set: 0x2, Hit, Tag: 0x000004  
Address: 0x00000568, Set: 0xb, Hit, Tag: 0x000002  
Address: 0x00001906, Set: 0x8, Hit, Tag: 0x00000c  
Address: 0x00001147, Set: 0xa, Miss, Tag: 0x000008  
Address: 0x00001518, Set: 0x8, Hit, Tag: 0x00000a  
Address: 0x00001309, Set: 0x8, Miss, Tag: 0x000009  
Address: 0x00000984, Set: 0xc, Miss, Tag: 0x000004  
Address: 0x00000655, Set: 0x2, Miss, Tag: 0x000003  
Address: 0x00001013, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00001727, Set: 0x9, Miss, Tag: 0x00000b  
Address: 0x00000207, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00001625, Set: 0x1, Miss, Tag: 0x00000b  
Address: 0x00001867, Set: 0x3, Miss, Tag: 0x00000c  
Address: 0x00000138, Set: 0x9, Miss, Tag: 0x000000  
Address: 0x00000443, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00001389, Set: 0xc, Miss, Tag: 0x000009  
Address: 0x00001815, Set: 0x0, Miss, Tag: 0x00000c  
Address: 0x00001251, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00001804, Set: 0x0, Miss, Tag: 0x00000c  
Address: 0x00000397, Set: 0xc, Miss, Tag: 0x000001  
Address: 0x00000550, Set: 0xa, Miss, Tag: 0x000002  
Address: 0x00001444, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00001678, Set: 0x3, Hit, Tag: 0x00000b  
Address: 0x00000536, Set: 0x9, Hit, Tag: 0x000002  
Address: 0x00000728, Set: 0x9, Miss, Tag: 0x000003  
Address: 0x00000148, Set: 0xa, Miss, Tag: 0x000000  
Address: 0x00001346, Set: 0xa, Hit, Tag: 0x000009  
Address: 0x00000863, Set: 0x3, Hit, Tag: 0x000004

Address: 0x00000971, Set: 0xb, Miss, Tag: 0x000004  
Address: 0x00000345, Set: 0xa, Miss, Tag: 0x000001  
Address: 0x00000013, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00001824, Set: 0x1, Miss, Tag: 0x00000c  
Address: 0x00000913, Set: 0x8, Hit, Tag: 0x000004  
Address: 0x00001919, Set: 0x8, Miss, Tag: 0x00000c  
Address: 0x00000923, Set: 0x9, Miss, Tag: 0x000004  
Address: 0x00000383, Set: 0xc, Hit, Tag: 0x000001  
Address: 0x00001180, Set: 0xc, Hit, Tag: 0x000008  
Address: 0x00001907, Set: 0x8, Hit, Tag: 0x00000c  
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Address: 0x00000145, Set: 0xa, Hit, Tag: 0x000000  
Address: 0x00001586, Set: 0xc, Hit, Tag: 0x00000a  
Address: 0x00001246, Set: 0x2, Hit, Tag: 0x000009  
Address: 0x00001770, Set: 0xb, Miss, Tag: 0x00000b  
Address: 0x00001405, Set: 0x0, Miss, Tag: 0x00000a  
Address: 0x00001384, Set: 0xc, Hit, Tag: 0x000009  
Address: 0x00000165, Set: 0xb, Miss, Tag: 0x000000  
Address: 0x00000747, Set: 0xa, Miss, Tag: 0x000003  
Address: 0x00001152, Set: 0xa, Hit, Tag: 0x000008  
Address: 0x00001416, Set: 0x0, Hit, Tag: 0x00000a  
Address: 0x00000503, Set: 0x8, Miss, Tag: 0x000002  
Address: 0x00001549, Set: 0xa, Miss, Tag: 0x00000a  
Address: 0x00001966, Set: 0xb, Miss, Tag: 0x00000c  
Address: 0x00001947, Set: 0xa, Miss, Tag: 0x00000c  
Address: 0x00001179, Set: 0xb, Miss, Tag: 0x000008  
Address: 0x00000455, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000627, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00001327, Set: 0x9, Hit, Tag: 0x000009  
Address: 0x00001801, Set: 0x0, Miss, Tag: 0x00000c  
Address: 0x00001490, Set: 0x4, Miss, Tag: 0x00000a  
Address: 0x00000250, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00000098, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00001503, Set: 0x8, Hit, Tag: 0x00000a  
Address: 0x00000026, Set: 0x1, Miss, Tag: 0x000000  
Address: 0x00001011, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00001374, Set: 0xb, Hit, Tag: 0x000009  
Address: 0x00000949, Set: 0xa, Miss, Tag: 0x000004  
Address: 0x00001395, Set: 0xc, Hit, Tag: 0x000009  
Address: 0x00000506, Set: 0x8, Hit, Tag: 0x000002  
Address: 0x00000808, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000386, Set: 0xc, Hit, Tag: 0x000001  
Address: 0x00000651, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000347, Set: 0xa, Hit, Tag: 0x000001  
Address: 0x00001632, Set: 0x1, Hit, Tag: 0x00000b  
Address: 0x00000373, Set: 0xb, Miss, Tag: 0x000001  
Address: 0x00001752, Set: 0xa, Miss, Tag: 0x00000b  
Address: 0x00000968, Set: 0xb, Miss, Tag: 0x000004  
Address: 0x00000538, Set: 0x9, Hit, Tag: 0x000002  
Address: 0x00000451, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000072, Set: 0x3, Miss, Tag: 0x000000  
Address: 0x00001954, Set: 0xa, Miss, Tag: 0x00000c  
Address: 0x00000954, Set: 0xa, Hit, Tag: 0x000004  
Address: 0x00001622, Set: 0x1, Hit, Tag: 0x00000b

Address: 0x00001873, Set: 0x3, Miss, Tag: 0x00000c  
Address: 0x00000853, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000753, Set: 0xa, Miss, Tag: 0x000003  
Address: 0x00000280, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00001480, Set: 0x4, Miss, Tag: 0x00000a  
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Address: 0x00000922, Set: 0x9, Miss, Tag: 0x000004  
Address: 0x00000283, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00000131, Set: 0x9, Hit, Tag: 0x000000  
Address: 0x00000377, Set: 0xb, Hit, Tag: 0x000001  
Address: 0x00000310, Set: 0x8, Miss, Tag: 0x000001  
Address: 0x00001142, Set: 0xa, Miss, Tag: 0x000008  
Address: 0x00001751, Set: 0xa, Miss, Tag: 0x00000b  
Address: 0x00001259, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00000489, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000209, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000020, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000875, Set: 0x3, Hit, Tag: 0x000004  
Address: 0x00000860, Set: 0x3, Hit, Tag: 0x000004  
Address: 0x00000367, Set: 0xb, Hit, Tag: 0x000001  
Address: 0x00000459, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00001233, Set: 0x1, Miss, Tag: 0x000009  
Address: 0x00000071, Set: 0x3, Miss, Tag: 0x000000  
Address: 0x00001428, Set: 0x1, Miss, Tag: 0x00000a  
Address: 0x00001771, Set: 0xb, Miss, Tag: 0x00000b  
Address: 0x00000523, Set: 0x9, Hit, Tag: 0x000002  
Address: 0x00001500, Set: 0x8, Miss, Tag: 0x00000a  
Address: 0x00001678, Set: 0x3, Hit, Tag: 0x00000b  
Address: 0x00001477, Set: 0x3, Miss, Tag: 0x00000a  
Address: 0x00001074, Set: 0x3, Miss, Tag: 0x000008  
Address: 0x00001503, Set: 0x8, Hit, Tag: 0x00000a  
Address: 0x00000283, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00001828, Set: 0x1, Hit, Tag: 0x00000c  
Address: 0x00001783, Set: 0xc, Miss, Tag: 0x00000b  
Address: 0x00001763, Set: 0xb, Hit, Tag: 0x00000b  
Address: 0x00001861, Set: 0x3, Miss, Tag: 0x00000c  
Address: 0x00001816, Set: 0x0, Hit, Tag: 0x00000c  
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Address: 0x00000096, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00001947, Set: 0xa, Hit, Tag: 0x00000c  
Address: 0x00001015, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00000406, Set: 0x0, Miss, Tag: 0x000002  
Address: 0x00001041, Set: 0x2, Miss, Tag: 0x000008  
Address: 0x00000719, Set: 0x8, Miss, Tag: 0x000003  
Address: 0x00001666, Set: 0x3, Miss, Tag: 0x00000b  
Address: 0x00001531, Set: 0x9, Miss, Tag: 0x00000a  
Address: 0x00000928, Set: 0x9, Hit, Tag: 0x000004  
Address: 0x00001686, Set: 0x4, Miss, Tag: 0x00000b  
Address: 0x00000358, Set: 0xa, Hit, Tag: 0x000001  
Address: 0x00001789, Set: 0xc, Miss, Tag: 0x00000b  
Address: 0x00000005, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000818, Set: 0x0, Hit, Tag: 0x000004  
Address: 0x00000974, Set: 0xb, Hit, Tag: 0x000004



Address: 0x00000076, Set: 0x3, Hit, Tag: 0x000000  
Address: 0x00000198, Set: 0xc, Miss, Tag: 0x000000  
Address: 0x00000698, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000599, Set: 0xc, Miss, Tag: 0x000002  
Address: 0x00001698, Set: 0x4, Miss, Tag: 0x00000b  
Address: 0x00000328, Set: 0x9, Miss, Tag: 0x000001  
Address: 0x00000029, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000725, Set: 0x9, Miss, Tag: 0x000003  
Address: 0x00001831, Set: 0x1, Hit, Tag: 0x00000c  
Address: 0x00000312, Set: 0x8, Hit, Tag: 0x000001  
Address: 0x00000505, Set: 0x8, Hit, Tag: 0x000002  
Address: 0x00001566, Set: 0xb, Miss, Tag: 0x00000a  
Address: 0x00000027, Set: 0x1, Hit, Tag: 0x000000  
Address: 0x00000318, Set: 0x8, Hit, Tag: 0x000001  
Address: 0x00001334, Set: 0x9, Miss, Tag: 0x000009  
Address: 0x00000665, Set: 0x3, Miss, Tag: 0x000003  
Address: 0x00000414, Set: 0x0, Miss, Tag: 0x000002  
Address: 0x00001233, Set: 0x1, Miss, Tag: 0x000009  
Address: 0x00001681, Set: 0x4, Miss, Tag: 0x00000b  
Address: 0x00000821, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00000226, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00000352, Set: 0xa, Hit, Tag: 0x000001  
Address: 0x00000439, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00001757, Set: 0xa, Hit, Tag: 0x00000b  
Address: 0x00001280, Set: 0x4, Hit, Tag: 0x000009  
Address: 0x00000077, Set: 0x3, Hit, Tag: 0x000000  
Address: 0x00000068, Set: 0x3, Hit, Tag: 0x000000  
Address: 0x00001021, Set: 0x1, Miss, Tag: 0x000008  
Address: 0x00000082, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00000886, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00001996, Set: 0xc, Miss, Tag: 0x00000c  
Address: 0x00000158, Set: 0xa, Miss, Tag: 0x000000  
Address: 0x00001084, Set: 0x4, Miss, Tag: 0x000008  
Address: 0x00000646, Set: 0x2, Miss, Tag: 0x000003  
Address: 0x00000758, Set: 0xa, Miss, Tag: 0x000003  
Address: 0x00000734, Set: 0x9, Hit, Tag: 0x000003  
Address: 0x00000974, Set: 0xb, Hit, Tag: 0x000004  
Address: 0x00000787, Set: 0xc, Miss, Tag: 0x000003  
Address: 0x00001459, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00000757, Set: 0xa, Miss, Tag: 0x000003  
Address: 0x00001099, Set: 0x4, Miss, Tag: 0x000008  
Address: 0x00001964, Set: 0xb, Miss, Tag: 0x00000c  
Address: 0x00000275, Set: 0x3, Miss, Tag: 0x000001  
Address: 0x00001126, Set: 0x9, Miss, Tag: 0x000008  
Address: 0x00000234, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00001609, Set: 0x0, Miss, Tag: 0x00000b  
Address: 0x00001792, Set: 0xc, Miss, Tag: 0x00000b  
Address: 0x00000649, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000794, Set: 0xc, Hit, Tag: 0x000003  
Address: 0x00001425, Set: 0x1, Miss, Tag: 0x00000a  
Address: 0x00001470, Set: 0x3, Hit, Tag: 0x00000a  
Address: 0x00001020, Set: 0x1, Hit, Tag: 0x000008  
Address: 0x00001777, Set: 0xb, Hit, Tag: 0x00000b  
Address: 0x00001909, Set: 0x8, Hit, Tag: 0x00000c

Address: 0x00000730, Set: 0x9, Hit, Tag: 0x0000003  
Address: 0x00001009, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00001986, Set: 0xc, Miss, Tag: 0x000000c  
Address: 0x00000798, Set: 0xc, Hit, Tag: 0x0000003  
Address: 0x00002031, Set: 0x1, Miss, Tag: 0x0000010  
Address: 0x00000020, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00001684, Set: 0x4, Miss, Tag: 0x000000b  
Address: 0x00001979, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00000178, Set: 0xb, Miss, Tag: 0x0000000  
Address: 0x00000720, Set: 0x9, Hit, Tag: 0x0000003  
Address: 0x00000577, Set: 0xb, Miss, Tag: 0x0000002  
Address: 0x00000936, Set: 0x9, Hit, Tag: 0x0000004  
Address: 0x00001454, Set: 0x2, Miss, Tag: 0x000000a  
Address: 0x00001551, Set: 0xa, Miss, Tag: 0x000000a  
Address: 0x00001723, Set: 0x9, Miss, Tag: 0x000000b  
Address: 0x00000866, Set: 0x3, Miss, Tag: 0x0000004  
Address: 0x00000260, Set: 0x3, Miss, Tag: 0x0000001  
Address: 0x00000774, Set: 0xb, Miss, Tag: 0x0000003  
Address: 0x00000782, Set: 0xc, Hit, Tag: 0x0000003  
Address: 0x00000535, Set: 0x9, Miss, Tag: 0x0000002  
Address: 0x00001901, Set: 0x8, Hit, Tag: 0x000000c  
Address: 0x00001017, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00000096, Set: 0x4, Hit, Tag: 0x0000000  
Address: 0x00001645, Set: 0x2, Miss, Tag: 0x000000b  
Address: 0x00001666, Set: 0x3, Hit, Tag: 0x000000b  
Address: 0x00000890, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00001022, Set: 0x1, Hit, Tag: 0x0000008  
Address: 0x00001088, Set: 0x4, Miss, Tag: 0x0000008  
Address: 0x00001910, Set: 0x8, Hit, Tag: 0x000000c  
Address: 0x00000751, Set: 0xa, Hit, Tag: 0x0000003  
Address: 0x00000949, Set: 0xa, Miss, Tag: 0x0000004  
Address: 0x00000592, Set: 0xc, Hit, Tag: 0x0000002  
Address: 0x00001760, Set: 0xb, Hit, Tag: 0x000000b  
Address: 0x00000887, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00001390, Set: 0xc, Miss, Tag: 0x0000009  
Address: 0x00001743, Set: 0xa, Hit, Tag: 0x000000b  
Address: 0x00000907, Set: 0x8, Miss, Tag: 0x0000004  
Address: 0x00001026, Set: 0x1, Hit, Tag: 0x0000008  
Address: 0x00001674, Set: 0x3, Hit, Tag: 0x000000b  
Address: 0x00001085, Set: 0x4, Hit, Tag: 0x0000008  
Address: 0x00001746, Set: 0xa, Hit, Tag: 0x000000b  
Address: 0x00000203, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00002022, Set: 0x1, Miss, Tag: 0x0000010  
Address: 0x00001153, Set: 0xa, Miss, Tag: 0x0000008  
Address: 0x00001754, Set: 0xa, Miss, Tag: 0x000000b  
Address: 0x00001697, Set: 0x4, Miss, Tag: 0x000000b  
Address: 0x00002019, Set: 0x0, Miss, Tag: 0x0000010  
Address: 0x00002014, Set: 0x0, Miss, Tag: 0x0000010  
Address: 0x00000424, Set: 0x1, Miss, Tag: 0x0000002  
Address: 0x00000753, Set: 0xa, Hit, Tag: 0x0000003  
Address: 0x00000501, Set: 0x8, Hit, Tag: 0x0000002  
Address: 0x00000277, Set: 0x3, Miss, Tag: 0x0000001  
Address: 0x00001770, Set: 0xb, Hit, Tag: 0x000000b  
Address: 0x00000597, Set: 0xc, Hit, Tag: 0x0000002

Address: 0x00001922, Set: 0x9, Miss, Tag: 0x00000c  
Address: 0x00001388, Set: 0xc, Miss, Tag: 0x000009  
Address: 0x00001487, Set: 0x4, Miss, Tag: 0x00000a  
Address: 0x00000896, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000428, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00001350, Set: 0xa, Miss, Tag: 0x000009  
Address: 0x00001647, Set: 0x2, Hit, Tag: 0x00000b  
Address: 0x00001377, Set: 0xb, Miss, Tag: 0x000009  
Address: 0x00001942, Set: 0xa, Miss, Tag: 0x00000c  
Address: 0x00001359, Set: 0xa, Hit, Tag: 0x000009  
Address: 0x00000216, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00001285, Set: 0x4, Miss, Tag: 0x000009  
Address: 0x00001055, Set: 0x2, Hit, Tag: 0x000008  
Address: 0x00001123, Set: 0x9, Hit, Tag: 0x000008  
Address: 0x00000263, Set: 0x3, Hit, Tag: 0x000001  
Address: 0x00000681, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000161, Set: 0xb, Miss, Tag: 0x000000  
Address: 0x00002010, Set: 0x0, Hit, Tag: 0x000010  
Address: 0x00000885, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00000135, Set: 0x9, Miss, Tag: 0x000000  
Address: 0x00001115, Set: 0x8, Miss, Tag: 0x000008  
Address: 0x00000591, Set: 0xc, Hit, Tag: 0x000002  
Address: 0x00001832, Set: 0x1, Miss, Tag: 0x00000c  
Address: 0x00001086, Set: 0x4, Hit, Tag: 0x000008  
Address: 0x00000558, Set: 0xa, Miss, Tag: 0x000002  
Address: 0x00000208, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00001839, Set: 0x1, Miss, Tag: 0x00000c  
Address: 0x00001059, Set: 0x2, Hit, Tag: 0x000008  
Address: 0x00000485, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00001562, Set: 0xb, Hit, Tag: 0x00000a  
Address: 0x00001657, Set: 0x2, Hit, Tag: 0x00000b  
Address: 0x00000359, Set: 0xa, Miss, Tag: 0x000001  
Address: 0x00000902, Set: 0x8, Miss, Tag: 0x000004  
Address: 0x00001096, Set: 0x4, Hit, Tag: 0x000008  
Address: 0x00001255, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00001331, Set: 0x9, Miss, Tag: 0x000009  
Address: 0x00000398, Set: 0xc, Miss, Tag: 0x000001  
Address: 0x00000854, Set: 0x2, Hit, Tag: 0x000004  
Address: 0x00000660, Set: 0x3, Hit, Tag: 0x000003  
Address: 0x00000293, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00000166, Set: 0xb, Miss, Tag: 0x000000  
Address: 0x00000877, Set: 0x3, Hit, Tag: 0x000004  
Address: 0x00001578, Set: 0xb, Hit, Tag: 0x00000a  
Address: 0x00001221, Set: 0x1, Miss, Tag: 0x000009  
Address: 0x00002000, Set: 0x0, Hit, Tag: 0x000010  
Address: 0x00001841, Set: 0x2, Miss, Tag: 0x00000c  
Address: 0x00001902, Set: 0x8, Hit, Tag: 0x00000c  
Address: 0x00000113, Set: 0x8, Miss, Tag: 0x000000  
Address: 0x00001803, Set: 0x0, Miss, Tag: 0x00000c  
Address: 0x00000739, Set: 0x9, Miss, Tag: 0x000003  
Address: 0x00000248, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00000870, Set: 0x3, Hit, Tag: 0x000004  
Address: 0x00001331, Set: 0x9, Hit, Tag: 0x000009  
Address: 0x00000033, Set: 0x1, Hit, Tag: 0x000000



Address: 0x00001956, Set: 0xa, Miss, Tag: 0x00000c  
Address: 0x00001889, Set: 0x4, Miss, Tag: 0x00000c  
Address: 0x00000241, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00001748, Set: 0xa, Miss, Tag: 0x00000b  
Address: 0x00000900, Set: 0x8, Miss, Tag: 0x000004  
Address: 0x00000727, Set: 0x9, Hit, Tag: 0x000003  
Address: 0x00001262, Set: 0x3, Miss, Tag: 0x000009  
Address: 0x00000509, Set: 0x8, Hit, Tag: 0x000002  
Address: 0x00001086, Set: 0x4, Miss, Tag: 0x000008  
Address: 0x00000116, Set: 0x8, Hit, Tag: 0x000000  
Address: 0x00001606, Set: 0x0, Hit, Tag: 0x00000b  
Address: 0x00000294, Set: 0x4, Hit, Tag: 0x000001  
Address: 0x00001447, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00002004, Set: 0x0, Hit, Tag: 0x000010  
Address: 0x00001148, Set: 0xa, Hit, Tag: 0x000008  
Address: 0x00000060, Set: 0x3, Miss, Tag: 0x000000  
Address: 0x00000249, Set: 0x2, Miss, Tag: 0x000001  
Address: 0x00001314, Set: 0x8, Miss, Tag: 0x000009  
Address: 0x00000937, Set: 0x9, Miss, Tag: 0x000004  
Address: 0x00001827, Set: 0x1, Miss, Tag: 0x00000c  
Address: 0x00000487, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000889, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00001621, Set: 0x1, Miss, Tag: 0x00000b  
Address: 0x00000342, Set: 0xa, Hit, Tag: 0x000001  
Address: 0x00001003, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00001376, Set: 0xb, Hit, Tag: 0x000009  
Address: 0x00001081, Set: 0x4, Miss, Tag: 0x000008  
Address: 0x00001251, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00000199, Set: 0xc, Hit, Tag: 0x000000  
Address: 0x00000364, Set: 0xb, Miss, Tag: 0x000001  
Address: 0x00001284, Set: 0x4, Miss, Tag: 0x000009  
Address: 0x00000107, Set: 0x8, Hit, Tag: 0x000000  
Address: 0x00000205, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00001526, Set: 0x9, Miss, Tag: 0x00000a  
Address: 0x00001855, Set: 0x2, Hit, Tag: 0x00000c  
Address: 0x00001106, Set: 0x8, Miss, Tag: 0x000008  
Address: 0x00000205, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00001069, Set: 0x3, Miss, Tag: 0x000008  
Address: 0x00001615, Set: 0x0, Hit, Tag: 0x00000b  
Address: 0x00001291, Set: 0x4, Miss, Tag: 0x000009  
Address: 0x00001186, Set: 0xc, Miss, Tag: 0x000008  
Address: 0x00001173, Set: 0xb, Miss, Tag: 0x000008  
Address: 0x00001585, Set: 0xc, Miss, Tag: 0x00000a  
Address: 0x00000585, Set: 0xc, Hit, Tag: 0x000002  
Address: 0x00001130, Set: 0x9, Miss, Tag: 0x000008  
Address: 0x00000686, Set: 0x4, Miss, Tag: 0x000003  
Address: 0x00000645, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00001379, Set: 0xb, Hit, Tag: 0x000009  
Address: 0x00002000, Set: 0x0, Hit, Tag: 0x000010  
Address: 0x00001582, Set: 0xc, Miss, Tag: 0x00000a  
Address: 0x00001159, Set: 0xa, Hit, Tag: 0x000008  
Address: 0x00000440, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000424, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00000732, Set: 0x9, Hit, Tag: 0x000003

Address: 0x00000782, Set: 0xc, Hit, Tag: 0x0000003  
Address: 0x00001427, Set: 0x1, Hit, Tag: 0x000000a  
Address: 0x00000060, Set: 0x3, Hit, Tag: 0x0000000  
Address: 0x00001863, Set: 0x3, Miss, Tag: 0x000000c  
Address: 0x00000630, Set: 0x1, Miss, Tag: 0x0000003  
Address: 0x00000259, Set: 0x2, Miss, Tag: 0x0000001  
Address: 0x00000180, Set: 0xc, Miss, Tag: 0x0000000  
Address: 0x00001915, Set: 0x8, Miss, Tag: 0x000000c  
Address: 0x00000367, Set: 0xb, Hit, Tag: 0x0000001  
Address: 0x00000385, Set: 0xc, Miss, Tag: 0x0000001  
Address: 0x00001393, Set: 0xc, Hit, Tag: 0x0000009  
Address: 0x00000174, Set: 0xb, Miss, Tag: 0x0000000  
Address: 0x00001491, Set: 0x4, Miss, Tag: 0x000000a  
Address: 0x00001598, Set: 0xc, Hit, Tag: 0x000000a  
Address: 0x00001244, Set: 0x2, Hit, Tag: 0x0000009  
Address: 0x00001059, Set: 0x2, Miss, Tag: 0x0000008  
Address: 0x00000841, Set: 0x2, Miss, Tag: 0x0000004  
Address: 0x00000382, Set: 0xc, Hit, Tag: 0x0000001  
Address: 0x00000184, Set: 0xc, Miss, Tag: 0x0000000  
Address: 0x00000379, Set: 0xb, Hit, Tag: 0x0000001  
Address: 0x00000967, Set: 0xb, Miss, Tag: 0x0000004  
Address: 0x00001314, Set: 0x8, Hit, Tag: 0x0000009  
Address: 0x00001065, Set: 0x3, Hit, Tag: 0x0000008  
Address: 0x00001613, Set: 0x0, Hit, Tag: 0x000000b  
Address: 0x00000646, Set: 0x2, Miss, Tag: 0x0000003  
Address: 0x00001017, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00001147, Set: 0xa, Hit, Tag: 0x0000008  
Address: 0x00001805, Set: 0x0, Miss, Tag: 0x000000c  
Address: 0x00001457, Set: 0x2, Miss, Tag: 0x000000a  
Address: 0x00001571, Set: 0xb, Miss, Tag: 0x000000a  
Address: 0x00000489, Set: 0x4, Miss, Tag: 0x0000002  
Address: 0x00000191, Set: 0xc, Miss, Tag: 0x0000000  
Address: 0x00000950, Set: 0xa, Miss, Tag: 0x0000004  
Address: 0x00000549, Set: 0xa, Miss, Tag: 0x0000002  
Address: 0x00000007, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00001581, Set: 0xc, Hit, Tag: 0x000000a  
Address: 0x00000809, Set: 0x0, Miss, Tag: 0x0000004  
Address: 0x00000187, Set: 0xc, Hit, Tag: 0x0000000  
Address: 0x00001448, Set: 0x2, Miss, Tag: 0x000000a  
Address: 0x00001176, Set: 0xb, Hit, Tag: 0x0000008  
Address: 0x00000572, Set: 0xb, Miss, Tag: 0x0000002  
Address: 0x00000793, Set: 0xc, Miss, Tag: 0x0000003  
Address: 0x00001350, Set: 0xa, Hit, Tag: 0x0000009  
Address: 0x00000016, Set: 0x0, Miss, Tag: 0x0000000  
Address: 0x00000343, Set: 0xa, Hit, Tag: 0x0000001  
Address: 0x00000546, Set: 0xa, Hit, Tag: 0x0000002  
Address: 0x00001075, Set: 0x3, Hit, Tag: 0x0000008  
Address: 0x00001184, Set: 0xc, Miss, Tag: 0x0000008  
Address: 0x00000928, Set: 0x9, Miss, Tag: 0x0000004  
Address: 0x00001259, Set: 0x2, Hit, Tag: 0x0000009  
Address: 0x00001563, Set: 0xb, Hit, Tag: 0x000000a  
Address: 0x00001896, Set: 0x4, Hit, Tag: 0x000000c  
Address: 0x00000526, Set: 0x9, Miss, Tag: 0x0000002  
Address: 0x00000580, Set: 0xc, Miss, Tag: 0x0000002

Address: 0x00001461, Set: 0x3, Miss, Tag: 0x00000a  
Address: 0x00001172, Set: 0xb, Hit, Tag: 0x000008  
Address: 0x00001598, Set: 0xc, Miss, Tag: 0x00000a  
Address: 0x00000560, Set: 0xb, Miss, Tag: 0x000002  
Address: 0x00000929, Set: 0x9, Miss, Tag: 0x000004  
Address: 0x00001007, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00000084, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00001418, Set: 0x0, Miss, Tag: 0x00000a  
Address: 0x00001199, Set: 0xc, Hit, Tag: 0x000008  
Address: 0x00001034, Set: 0x1, Miss, Tag: 0x000008  
Address: 0x00001967, Set: 0xb, Miss, Tag: 0x00000c  
Address: 0x00001206, Set: 0x0, Miss, Tag: 0x000009  
Address: 0x00000567, Set: 0xb, Hit, Tag: 0x000002  
Address: 0x00000728, Set: 0x9, Hit, Tag: 0x000003  
Address: 0x00001393, Set: 0xc, Miss, Tag: 0x000009  
Address: 0x00002015, Set: 0x0, Miss, Tag: 0x000010  
Address: 0x00001904, Set: 0x8, Hit, Tag: 0x00000c  
Address: 0x00001965, Set: 0xb, Miss, Tag: 0x00000c  
Address: 0x00000760, Set: 0xb, Miss, Tag: 0x000003  
Address: 0x00001207, Set: 0x0, Hit, Tag: 0x000009  
Address: 0x00001981, Set: 0xc, Miss, Tag: 0x00000c  
Address: 0x00001103, Set: 0x8, Hit, Tag: 0x000008  
Address: 0x00001753, Set: 0xa, Hit, Tag: 0x00000b  
Address: 0x00001008, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00000240, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000634, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00000220, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00001803, Set: 0x0, Miss, Tag: 0x00000c  
Address: 0x00000482, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000746, Set: 0xa, Miss, Tag: 0x000003  
Address: 0x00000336, Set: 0x9, Miss, Tag: 0x000001  
Address: 0x00001943, Set: 0xa, Miss, Tag: 0x00000c  
Address: 0x00001918, Set: 0x8, Hit, Tag: 0x00000c  
Address: 0x00001934, Set: 0x9, Miss, Tag: 0x00000c  
Address: 0x00000455, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00000799, Set: 0xc, Hit, Tag: 0x000003  
Address: 0x00000893, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000539, Set: 0x9, Miss, Tag: 0x000002  
Address: 0x00000169, Set: 0xb, Hit, Tag: 0x000000  
Address: 0x00000044, Set: 0x2, Miss, Tag: 0x000000  
Address: 0x00001574, Set: 0xb, Hit, Tag: 0x00000a  
Address: 0x00000088, Set: 0x4, Miss, Tag: 0x000000  
Address: 0x00001250, Set: 0x2, Miss, Tag: 0x000009  
Address: 0x00000093, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00000817, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00000595, Set: 0xc, Hit, Tag: 0x000002  
Address: 0x00000061, Set: 0x3, Hit, Tag: 0x000000  
Address: 0x00000673, Set: 0x3, Miss, Tag: 0x000003  
Address: 0x00000513, Set: 0x8, Miss, Tag: 0x000002  
Address: 0x00000821, Set: 0x1, Miss, Tag: 0x000004  
Address: 0x00001880, Set: 0x4, Miss, Tag: 0x00000c  
Address: 0x00000446, Set: 0x2, Hit, Tag: 0x000002  
Address: 0x00001925, Set: 0x9, Hit, Tag: 0x00000c  
Address: 0x00001586, Set: 0xc, Miss, Tag: 0x00000a

Address: 0x00001455, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00000117, Set: 0x8, Hit, Tag: 0x000000  
Address: 0x00000172, Set: 0xb, Hit, Tag: 0x000000  
Address: 0x00001675, Set: 0x3, Miss, Tag: 0x00000b  
Address: 0x00001920, Set: 0x9, Hit, Tag: 0x00000c  
Address: 0x00000654, Set: 0x2, Miss, Tag: 0x000003  
Address: 0x00000373, Set: 0xb, Miss, Tag: 0x000001  
Address: 0x00000208, Set: 0x0, Miss, Tag: 0x000001  
Address: 0x00000549, Set: 0xa, Hit, Tag: 0x000002  
Address: 0x00000243, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00000094, Set: 0x4, Hit, Tag: 0x000000  
Address: 0x00001004, Set: 0x0, Miss, Tag: 0x000008  
Address: 0x00001042, Set: 0x2, Hit, Tag: 0x000008  
Address: 0x00000988, Set: 0xc, Miss, Tag: 0x000004  
Address: 0x00001544, Set: 0xa, Miss, Tag: 0x00000a  
Address: 0x00001211, Set: 0x0, Miss, Tag: 0x000009  
Address: 0x00001032, Set: 0x1, Hit, Tag: 0x000008  
Address: 0x00001070, Set: 0x3, Hit, Tag: 0x000008  
Address: 0x00001299, Set: 0x4, Hit, Tag: 0x000009  
Address: 0x00000235, Set: 0x1, Miss, Tag: 0x000001  
Address: 0x00001163, Set: 0xb, Miss, Tag: 0x000008  
Address: 0x00000068, Set: 0x3, Miss, Tag: 0x000000  
Address: 0x00000830, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00001224, Set: 0x1, Miss, Tag: 0x000009  
Address: 0x00000742, Set: 0xa, Hit, Tag: 0x000003  
Address: 0x00001343, Set: 0xa, Miss, Tag: 0x000009  
Address: 0x00002046, Set: 0x2, Miss, Tag: 0x000010  
Address: 0x00000574, Set: 0xb, Hit, Tag: 0x000002  
Address: 0x00001790, Set: 0xc, Miss, Tag: 0x00000b  
Address: 0x00001923, Set: 0x9, Hit, Tag: 0x00000c  
Address: 0x00000112, Set: 0x8, Hit, Tag: 0x000000  
Address: 0x00001197, Set: 0xc, Hit, Tag: 0x000008  
Address: 0x00002040, Set: 0x2, Miss, Tag: 0x000010  
Address: 0x00000284, Set: 0x4, Miss, Tag: 0x000001  
Address: 0x00000824, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00001912, Set: 0x8, Hit, Tag: 0x00000c  
Address: 0x00000938, Set: 0x9, Miss, Tag: 0x000004  
Address: 0x00001197, Set: 0xc, Hit, Tag: 0x000008  
Address: 0x00000073, Set: 0x3, Hit, Tag: 0x000000  
Address: 0x00001487, Set: 0x4, Miss, Tag: 0x00000a  
Address: 0x00001440, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00000167, Set: 0xb, Hit, Tag: 0x000000  
Address: 0x00000444, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000434, Set: 0x1, Miss, Tag: 0x000002  
Address: 0x00001155, Set: 0xa, Miss, Tag: 0x000008  
Address: 0x00001988, Set: 0xc, Miss, Tag: 0x00000c  
Address: 0x00001645, Set: 0x2, Miss, Tag: 0x00000b  
Address: 0x00000140, Set: 0xa, Miss, Tag: 0x000000  
Address: 0x00001010, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00000896, Set: 0x4, Miss, Tag: 0x000004  
Address: 0x00000375, Set: 0xb, Miss, Tag: 0x000001  
Address: 0x00000125, Set: 0x9, Miss, Tag: 0x000000  
Address: 0x00000965, Set: 0xb, Miss, Tag: 0x000004  
Address: 0x00001205, Set: 0x0, Hit, Tag: 0x000009

Address: 0x00001350, Set: 0xa, Hit, Tag: 0x000009  
Address: 0x00001707, Set: 0x8, Miss, Tag: 0x00000b  
Address: 0x00000501, Set: 0x8, Miss, Tag: 0x000002  
Address: 0x00001348, Set: 0xa, Hit, Tag: 0x000009  
Address: 0x00000233, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00000243, Set: 0x2, Hit, Tag: 0x000001  
Address: 0x00001223, Set: 0x1, Hit, Tag: 0x000009  
Address: 0x00000346, Set: 0xa, Miss, Tag: 0x000001  
Address: 0x00001440, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00001215, Set: 0x0, Hit, Tag: 0x000009  
Address: 0x00000630, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00000216, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00001079, Set: 0x3, Miss, Tag: 0x000008  
Address: 0x00001569, Set: 0xb, Hit, Tag: 0x00000a  
Address: 0x00001413, Set: 0x0, Miss, Tag: 0x00000a  
Address: 0x00001152, Set: 0xa, Miss, Tag: 0x000008  
Address: 0x00001008, Set: 0x0, Hit, Tag: 0x000008  
Address: 0x00000805, Set: 0x0, Miss, Tag: 0x000004  
Address: 0x00001320, Set: 0x9, Miss, Tag: 0x000009  
Address: 0x00001452, Set: 0x2, Miss, Tag: 0x00000a  
Address: 0x00001239, Set: 0x1, Hit, Tag: 0x000009  
Address: 0x00000427, Set: 0x1, Hit, Tag: 0x000002  
Address: 0x00001392, Set: 0xc, Miss, Tag: 0x000009  
Address: 0x00000836, Set: 0x1, Hit, Tag: 0x000004  
Address: 0x00000567, Set: 0xb, Hit, Tag: 0x000002  
Address: 0x00000354, Set: 0xa, Hit, Tag: 0x000001  
Address: 0x00001732, Set: 0x9, Miss, Tag: 0x00000b  
Address: 0x00000942, Set: 0xa, Miss, Tag: 0x000004  
Address: 0x00000480, Set: 0x4, Miss, Tag: 0x000002  
Address: 0x00000649, Set: 0x2, Hit, Tag: 0x000003  
Address: 0x00000100, Set: 0x8, Miss, Tag: 0x000000  
Address: 0x00001830, Set: 0x1, Miss, Tag: 0x00000c  
Address: 0x00000308, Set: 0x8, Miss, Tag: 0x000001  
Address: 0x00000601, Set: 0x0, Miss, Tag: 0x000003  
Address: 0x00001130, Set: 0x9, Miss, Tag: 0x000008  
Address: 0x00000542, Set: 0xa, Miss, Tag: 0x000002  
Address: 0x00000844, Set: 0x2, Miss, Tag: 0x000004  
Address: 0x00000305, Set: 0x8, Miss, Tag: 0x000001  
Address: 0x00000888, Set: 0x4, Hit, Tag: 0x000004  
Address: 0x00000236, Set: 0x1, Hit, Tag: 0x000001  
Address: 0x00001520, Set: 0x9, Hit, Tag: 0x00000a  
Address: 0x00001518, Set: 0x8, Miss, Tag: 0x00000a  
Address: 0x00000452, Set: 0x2, Miss, Tag: 0x000002  
Address: 0x00000551, Set: 0xa, Hit, Tag: 0x000002  
Address: 0x00001039, Set: 0x1, Miss, Tag: 0x000008  
Address: 0x00001865, Set: 0x3, Hit, Tag: 0x00000c  
Address: 0x00001704, Set: 0x8, Hit, Tag: 0x00000b  
Address: 0x00000000, Set: 0x0, Miss, Tag: 0x000000  
Address: 0x00000622, Set: 0x1, Miss, Tag: 0x000003  
Address: 0x00000976, Set: 0xb, Miss, Tag: 0x000004  
Address: 0x00001452, Set: 0x2, Hit, Tag: 0x00000a  
Address: 0x00001861, Set: 0x3, Hit, Tag: 0x00000c  
Address: 0x00001403, Set: 0x0, Miss, Tag: 0x00000a  
Address: 0x00000797, Set: 0xc, Miss, Tag: 0x000003



Address: 0x00000649, Set: 0x2, Hit, Tag: 0x0000003  
Address: 0x00001971, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00001151, Set: 0xa, Hit, Tag: 0x0000008  
Address: 0x00000333, Set: 0x9, Miss, Tag: 0x0000001  
Address: 0x00000865, Set: 0x3, Miss, Tag: 0x0000004  
Address: 0x00001631, Set: 0x1, Miss, Tag: 0x000000b  
Address: 0x00000983, Set: 0xc, Hit, Tag: 0x0000004  
Address: 0x00000965, Set: 0xb, Hit, Tag: 0x0000004  
Address: 0x00001413, Set: 0x0, Miss, Tag: 0x000000a  
Address: 0x00001291, Set: 0x4, Miss, Tag: 0x0000009  
Address: 0x00001566, Set: 0xb, Hit, Tag: 0x000000a  
Address: 0x00000495, Set: 0x4, Miss, Tag: 0x0000002  
Address: 0x00001833, Set: 0x1, Hit, Tag: 0x000000c  
Address: 0x00000362, Set: 0xb, Miss, Tag: 0x0000001  
Address: 0x00000800, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00000673, Set: 0x3, Hit, Tag: 0x0000003  
Address: 0x00000598, Set: 0xc, Miss, Tag: 0x0000002  
Address: 0x00000272, Set: 0x3, Miss, Tag: 0x0000001  
Address: 0x00000144, Set: 0xa, Miss, Tag: 0x0000000  
Address: 0x00001050, Set: 0x2, Hit, Tag: 0x0000008  
Address: 0x00000824, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00001183, Set: 0xc, Miss, Tag: 0x0000008  
Address: 0x00000867, Set: 0x3, Miss, Tag: 0x0000004  
Address: 0x00000480, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00001183, Set: 0xc, Hit, Tag: 0x0000008  
Address: 0x00001489, Set: 0x4, Hit, Tag: 0x000000a  
Address: 0x00001456, Set: 0x2, Hit, Tag: 0x000000a  
Address: 0x00000588, Set: 0xc, Miss, Tag: 0x0000002  
Address: 0x00001302, Set: 0x8, Miss, Tag: 0x0000009  
Address: 0x00000811, Set: 0x0, Hit, Tag: 0x0000004  
Address: 0x00001385, Set: 0xc, Miss, Tag: 0x0000009  
Address: 0x00001951, Set: 0xa, Miss, Tag: 0x000000c  
Address: 0x00000734, Set: 0x9, Miss, Tag: 0x0000003  
Address: 0x00000488, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00000237, Set: 0x1, Miss, Tag: 0x0000001  
Address: 0x00001600, Set: 0x0, Miss, Tag: 0x000000b  
Address: 0x00000072, Set: 0x3, Hit, Tag: 0x0000000  
Address: 0x00001220, Set: 0x1, Hit, Tag: 0x0000009  
Address: 0x00000517, Set: 0x8, Miss, Tag: 0x0000002  
Address: 0x00001485, Set: 0x4, Hit, Tag: 0x000000a  
Address: 0x00000463, Set: 0x3, Miss, Tag: 0x0000002  
Address: 0x00000036, Set: 0x1, Miss, Tag: 0x0000000  
Address: 0x00001981, Set: 0xc, Hit, Tag: 0x000000c  
Address: 0x00000249, Set: 0x2, Miss, Tag: 0x0000001  
Address: 0x00000398, Set: 0xc, Miss, Tag: 0x0000001  
Address: 0x00000733, Set: 0x9, Miss, Tag: 0x0000003  
Address: 0x00000922, Set: 0x9, Miss, Tag: 0x0000004  
Address: 0x00000997, Set: 0xc, Miss, Tag: 0x0000004  
Address: 0x00001006, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00001066, Set: 0x3, Miss, Tag: 0x0000008  
Address: 0x00002047, Set: 0x2, Miss, Tag: 0x000010  
Address: 0x00001830, Set: 0x1, Hit, Tag: 0x000000c  
Address: 0x00000202, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00000867, Set: 0x3, Miss, Tag: 0x0000004

Address: 0x00000262, Set: 0x3, Hit, Tag: 0x0000001  
Address: 0x00001385, Set: 0xc, Miss, Tag: 0x0000009  
Address: 0x00000308, Set: 0x8, Hit, Tag: 0x0000001  
Address: 0x00001718, Set: 0x8, Hit, Tag: 0x000000b  
Address: 0x00001973, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00001611, Set: 0x0, Hit, Tag: 0x000000b  
Address: 0x00000481, Set: 0x4, Hit, Tag: 0x0000002  
Address: 0x00001310, Set: 0x8, Miss, Tag: 0x0000009  
Address: 0x00001514, Set: 0x8, Hit, Tag: 0x000000a  
Address: 0x00001216, Set: 0x0, Miss, Tag: 0x0000009  
Address: 0x00001799, Set: 0xc, Miss, Tag: 0x000000b  
Address: 0x00001751, Set: 0xa, Miss, Tag: 0x000000b  
Address: 0x00000768, Set: 0xb, Miss, Tag: 0x0000003  
Address: 0x00001871, Set: 0x3, Miss, Tag: 0x000000c  
Address: 0x00000923, Set: 0x9, Miss, Tag: 0x0000004  
Address: 0x00001285, Set: 0x4, Hit, Tag: 0x0000009  
Address: 0x00001308, Set: 0x8, Hit, Tag: 0x0000009  
Address: 0x00001387, Set: 0xc, Hit, Tag: 0x0000009  
Address: 0x00001321, Set: 0x9, Miss, Tag: 0x0000009  
Address: 0x00001241, Set: 0x2, Miss, Tag: 0x0000009  
Address: 0x00001636, Set: 0x1, Hit, Tag: 0x000000b  
Address: 0x00001720, Set: 0x9, Miss, Tag: 0x000000b  
Address: 0x00001975, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00000510, Set: 0x8, Miss, Tag: 0x0000002  
Address: 0x00000669, Set: 0x3, Miss, Tag: 0x0000003  
Address: 0x00000933, Set: 0x9, Miss, Tag: 0x0000004  
Address: 0x00001577, Set: 0xb, Miss, Tag: 0x000000a  
Address: 0x00000668, Set: 0x3, Miss, Tag: 0x0000003  
Address: 0x00000715, Set: 0x8, Miss, Tag: 0x0000003  
Address: 0x00001779, Set: 0xb, Miss, Tag: 0x000000b  
Address: 0x00001535, Set: 0x9, Miss, Tag: 0x000000a  
Address: 0x00000977, Set: 0xb, Hit, Tag: 0x0000004  
Address: 0x00001116, Set: 0x8, Miss, Tag: 0x0000008  
Address: 0x00001844, Set: 0x2, Miss, Tag: 0x000000c  
Address: 0x00000647, Set: 0x2, Miss, Tag: 0x0000003  
Address: 0x00001042, Set: 0x2, Miss, Tag: 0x0000008  
Address: 0x00001407, Set: 0x0, Miss, Tag: 0x000000a  
Address: 0x00001128, Set: 0x9, Miss, Tag: 0x0000008  
Address: 0x00000304, Set: 0x8, Hit, Tag: 0x0000001  
Address: 0x00000873, Set: 0x3, Hit, Tag: 0x0000004  
Address: 0x00000296, Set: 0x4, Miss, Tag: 0x0000001  
Address: 0x00000055, Set: 0x2, Miss, Tag: 0x0000000  
Address: 0x00000577, Set: 0xb, Miss, Tag: 0x0000002  
Address: 0x00001064, Set: 0x3, Hit, Tag: 0x0000008  
Address: 0x00001926, Set: 0x9, Miss, Tag: 0x000000c  
Address: 0x00001500, Set: 0x8, Hit, Tag: 0x000000a  
Address: 0x00000302, Set: 0x8, Hit, Tag: 0x0000001  
Address: 0x00001187, Set: 0xc, Hit, Tag: 0x0000008  
Address: 0x00000839, Set: 0x1, Miss, Tag: 0x0000004  
Address: 0x00001623, Set: 0x1, Hit, Tag: 0x000000b  
Address: 0x00000380, Set: 0xc, Miss, Tag: 0x0000001  
Address: 0x00000427, Set: 0x1, Hit, Tag: 0x0000002  
Address: 0x00001295, Set: 0x4, Hit, Tag: 0x0000009  
Address: 0x00000307, Set: 0x8, Hit, Tag: 0x0000001

Address: 0x00000938, Set: 0x9, Hit, Tag: 0x0000004  
Address: 0x00001964, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00001240, Set: 0x2, Hit, Tag: 0x0000009  
Address: 0x00000467, Set: 0x3, Miss, Tag: 0x0000002  
Address: 0x00000585, Set: 0xc, Hit, Tag: 0x0000002  
Address: 0x00001955, Set: 0xa, Hit, Tag: 0x000000c  
Address: 0x00000198, Set: 0xc, Miss, Tag: 0x0000000  
Address: 0x00000072, Set: 0x3, Miss, Tag: 0x0000000  
Address: 0x00000884, Set: 0x4, Hit, Tag: 0x0000004  
Address: 0x00001314, Set: 0x8, Hit, Tag: 0x0000009  
Address: 0x00001916, Set: 0x8, Miss, Tag: 0x000000c  
Address: 0x00001531, Set: 0x9, Miss, Tag: 0x000000a  
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Address: 0x00001275, Set: 0x3, Miss, Tag: 0x0000009  
Address: 0x00000612, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000613, Set: 0x0, Hit, Tag: 0x0000003  
Address: 0x00000101, Set: 0x8, Miss, Tag: 0x0000000  
Address: 0x00000908, Set: 0x8, Miss, Tag: 0x0000004  
Address: 0x00000668, Set: 0x3, Hit, Tag: 0x0000003  
Address: 0x00000678, Set: 0x3, Hit, Tag: 0x0000003  
Address: 0x00001973, Set: 0xb, Hit, Tag: 0x000000c  
Address: 0x00000547, Set: 0xa, Hit, Tag: 0x0000002  
Address: 0x00000130, Set: 0x9, Miss, Tag: 0x0000000  
Address: 0x00000227, Set: 0x1, Miss, Tag: 0x0000001  
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Address: 0x00000970, Set: 0xb, Hit, Tag: 0x0000004  
Address: 0x00001850, Set: 0x2, Hit, Tag: 0x000000c  
Address: 0x00000066, Set: 0x3, Hit, Tag: 0x0000000  
Address: 0x00001397, Set: 0xc, Hit, Tag: 0x0000009  
Address: 0x00001098, Set: 0x4, Miss, Tag: 0x0000008  
Address: 0x00000374, Set: 0xb, Hit, Tag: 0x0000001  
Address: 0x00000287, Set: 0x4, Miss, Tag: 0x0000001  
Address: 0x00001014, Set: 0x0, Miss, Tag: 0x0000008  
Address: 0x00001614, Set: 0x0, Hit, Tag: 0x000000b  
Address: 0x00000754, Set: 0xa, Miss, Tag: 0x0000003  
Address: 0x00001599, Set: 0xc, Miss, Tag: 0x000000a  
Address: 0x00001522, Set: 0x9, Hit, Tag: 0x000000a  
Address: 0x00000952, Set: 0xa, Hit, Tag: 0x0000004  
Address: 0x00001672, Set: 0x3, Miss, Tag: 0x000000b  
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Address: 0x00000219, Set: 0x0, Miss, Tag: 0x0000001  
Address: 0x00001540, Set: 0xa, Miss, Tag: 0x000000a  
Address: 0x00001890, Set: 0x4, Miss, Tag: 0x000000c  
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Address: 0x00000454, Set: 0x2, Miss, Tag: 0x0000002  
Address: 0x00001140, Set: 0xa, Miss, Tag: 0x0000008  
Address: 0x00000869, Set: 0x3, Miss, Tag: 0x0000004  
Address: 0x00001362, Set: 0xb, Miss, Tag: 0x0000009  
Address: 0x00001809, Set: 0x0, Miss, Tag: 0x000000c  
Address: 0x00001547, Set: 0xa, Hit, Tag: 0x000000a  
Address: 0x00001287, Set: 0x4, Hit, Tag: 0x0000009  
Address: 0x00000308, Set: 0x8, Miss, Tag: 0x0000001  
Address: 0x00001677, Set: 0x3, Miss, Tag: 0x000000b



```
Address: 0x00001514, Set: 0x8, Hit, Tag: 0x00000a
Address: 0x00002042, Set: 0x2, Miss, Tag: 0x000010
Address: 0x00000599, Set: 0xc, Hit, Tag: 0x000002
Address: 0x00001317, Set: 0x8, Hit, Tag: 0x000009
Address: 0x00000060, Set: 0x3, Hit, Tag: 0x000000
Address: 0x00001997, Set: 0xc, Miss, Tag: 0x00000c
Address: 0x00000367, Set: 0xb, Hit, Tag: 0x000001
Address: 0x00000434, Set: 0x1, Miss, Tag: 0x000002
Address: 0x00000236, Set: 0x1, Hit, Tag: 0x000001
```

## Test Case:

### Configuration:

```
4096
128
16
LRU
WB
```

### Access sequences:

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R: 1804
W: 1174
R: 1545
W: 1604
R: 381
W: 1455
R: 1753
W: 402
R: 503
W: 854
R: 1130
W: 1091
R: 532
W: 700
R: 1729
W: 667
R: 1705
W: 799
R: 1746
W: 1799
R: 502
W: 205
R: 384
W: 719
R: 1415
W: 599
R: 600
```

W: 1599  
R: 1702  
W: 1510  
R: 1073  
W: 1458  
R: 636  
W: 571  
R: 1014  
W: 1017  
R: 2026  
W: 719  
R: 1419  
W: 482  
R: 1573  
W: 502  
R: 1573  
W: 57  
R: 1202  
W: 1254  
R: 724  
W: 860  
R: 5  
W: 423  
R: 611  
W: 508  
R: 628  
W: 996  
R: 1227  
W: 2044  
R: 1595  
W: 1827  
R: 1595  
W: 1249  
R: 1289  
W: 620  
R: 659  
W: 1925  
R: 1191  
W: 1673  
R: 894  
W: 1170  
R: 344  
W: 266  
R: 1652  
W: 1917  
R: 768  
W: 1177  
R: 1974  
W: 1970  
R: 383  
W: 650  
R: 782  
W: 389  
R: 1073

W: 1394  
R: 897  
W: 1702  
R: 342  
W: 76  
R: 1698  
W: 1937  
R: 1904  
W: 1245  
R: 1138  
W: 1145  
R: 1865  
W: 1797  
R: 1023  
W: 1009  
R: 1422  
W: 1917  
R: 131  
W: 1766  
R: 135  
W: 1783  
R: 1635  
W: 903  
R: 912  
W: 1561  
R: 826  
W: 1295  
R: 163  
W: 1608  
R: 1684  
W: 1237  
R: 954  
W: 533  
R: 891  
W: 1296  
R: 610  
W: 541  
R: 1185  
W: 466  
R: 1786  
W: 275  
R: 1611  
W: 1603  
R: 24  
W: 586  
R: 564  
W: 1446  
R: 456  
W: 695  
R: 1164  
W: 591  
R: 430  
W: 751  
R: 1495

W: 1342  
R: 264  
W: 273  
R: 590  
W: 428  
R: 1881  
W: 226  
R: 1665  
W: 788  
R: 760  
W: 508  
R: 36  
W: 1370  
R: 1049  
W: 1222  
R: 1836  
W: 787  
R: 1497  
W: 1399  
R: 342  
W: 1522  
R: 1986  
W: 907  
R: 920  
W: 394  
R: 1602  
W: 37  
R: 985  
W: 2033  
R: 788  
W: 432  
R: 1327  
W: 1053  
R: 705  
W: 1917  
R: 1481  
W: 539  
R: 96  
W: 1098  
R: 1327  
W: 856  
R: 1606  
W: 1363  
R: 178  
W: 607  
R: 537  
W: 2014  
R: 1394  
W: 2035  
R: 1365  
W: 1736  
R: 1509  
W: 1303  
R: 595

W: 381  
R: 1697  
W: 150  
R: 418  
W: 635  
R: 135  
W: 1207  
R: 1067  
W: 1462  
R: 212  
W: 1773  
R: 1332  
W: 1693  
R: 264  
W: 1428  
R: 743  
W: 1591  
R: 236  
W: 301  
R: 906  
W: 414  
R: 908  
W: 1444  
R: 380  
W: 254  
R: 1431  
W: 1745  
R: 1990  
W: 892  
R: 1001  
W: 538  
R: 1273  
W: 650  
R: 688  
W: 1692  
R: 1285  
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R: 237  
W: 1063  
R: 30  
W: 1569  
R: 708  
W: 294  
R: 949  
W: 1451  
R: 1885  
W: 1185  
R: 1752  
W: 743  
R: 1599  
W: 612  
R: 139

W: 1979  
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W: 1570  
R: 1677  
W: 808  
R: 414  
W: 630  
R: 1346  
W: 1688  
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R: 809  
W: 135  
R: 823  
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R: 1198  
W: 853  
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R: 655  
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W: 550  
R: 1444  
W: 1678  
R: 536  
W: 728  
R: 148  
W: 1346  
R: 863  
W: 971  
R: 345  
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R: 1824  
W: 913  
R: 1919  
W: 923  
R: 383

W: 1180  
R: 1907  
W: 1039  
R: 145  
W: 1586  
R: 1246  
W: 1770  
R: 1405  
W: 1384  
R: 165  
W: 747  
R: 1152  
W: 1416  
R: 503  
W: 1549  
R: 1966  
W: 1947  
R: 1179  
W: 455  
R: 627  
W: 1327  
R: 1801  
W: 1490  
R: 250  
W: 98  
R: 1503  
W: 26  
R: 1011  
W: 1374  
R: 949  
W: 1395  
R: 506  
W: 808  
R: 386  
W: 651  
R: 347  
W: 1632  
R: 373  
W: 1752  
R: 968  
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R: 451  
W: 72  
R: 1954  
W: 954  
R: 1622  
W: 1873  
R: 853  
W: 753  
R: 280  
W: 1480  
R: 33  
W: 33  
R: 922

W: 283  
R: 131  
W: 377  
R: 310  
W: 1142  
R: 1751  
W: 1259  
R: 489  
W: 209  
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W: 875  
R: 860  
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R: 459  
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R: 71  
W: 1428  
R: 1771  
W: 523  
R: 1500  
W: 1678  
R: 1477  
W: 1074  
R: 1503  
W: 283  
R: 1828  
W: 1783  
R: 1763  
W: 1861  
R: 1816  
W: 638  
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W: 1947  
R: 1015  
W: 406  
R: 1041  
W: 719  
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W: 818  
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R: 725



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W: 27  
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R: 665  
W: 414  
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W: 68  
R: 1021  
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R: 886  
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W: 1084  
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W: 758  
R: 734  
W: 974  
R: 787  
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R: 1979

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R: 866  
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R: 774  
W: 782  
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R: 2014  
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R: 1377

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R: 854  
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R: 293  
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R: 877  
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R: 1221  
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W: 1803  
R: 739  
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R: 1748  
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W: 180  
R: 1915

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W: 1753  
R: 1008  
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R: 634  
W: 220  
R: 1803  
W: 482  
R: 746  
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R: 1943  
W: 1918  
R: 1934  
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R: 799  
W: 893  
R: 539  
W: 169  
R: 44  
W: 1574  
R: 88  
W: 1250  
R: 93  
W: 817  
R: 595  
W: 61  
R: 673  
W: 513  
R: 821  
W: 1880  
R: 446  
W: 1925  
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W: 1455  
R: 117  
W: 172  
R: 1675  
W: 1920  
R: 654  
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R: 988  
W: 1544  
R: 1211  
W: 1032  
R: 1070  
W: 1299  
R: 235  
W: 1163  
R: 68  
W: 830  
R: 1224  
W: 742  
R: 1343  
W: 2046  
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W: 1790  
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R: 434  
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R: 140  
W: 1010  
R: 896  
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R: 125  
W: 965  
R: 1205  
W: 1350  
R: 1707  
W: 501  
R: 1348  
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R: 243  
W: 1223  
R: 346

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W: 630  
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R: 1569  
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R: 1152  
W: 1008  
R: 805  
W: 1320  
R: 1452  
W: 1239  
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W: 1392  
R: 836  
W: 567  
R: 354  
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R: 942  
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W: 100  
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R: 601  
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R: 542  
W: 844  
R: 305  
W: 888  
R: 236  
W: 1520  
R: 1518  
W: 452  
R: 551  
W: 1039  
R: 1865  
W: 1704  
R: 0  
W: 622  
R: 976  
W: 1452  
R: 1861  
W: 1403  
R: 797  
W: 649  
R: 1971  
W: 1151  
R: 333  
W: 865  
R: 1631  
W: 983  
R: 965



W: 1413  
R: 1291  
W: 1566  
R: 495  
W: 1833  
R: 362  
W: 800  
R: 673  
W: 598  
R: 272  
W: 144  
R: 1050  
W: 824  
R: 1183  
W: 867  
R: 480  
W: 1183  
R: 1489  
W: 1456  
R: 588  
W: 1302  
R: 811  
W: 1385  
R: 1951  
W: 734  
R: 488  
W: 237  
R: 1600  
W: 72  
R: 1220  
W: 517  
R: 1485  
W: 463  
R: 36  
W: 1981  
R: 249  
W: 398  
R: 733  
W: 922  
R: 997  
W: 1006  
R: 1066  
W: 2047  
R: 1830  
W: 202  
R: 867  
W: 262  
R: 1385  
W: 308  
R: 1718  
W: 1973  
R: 1611  
W: 481  
R: 1310

W: 1514  
R: 1216  
W: 1799  
R: 1751  
W: 768  
R: 1871  
W: 923  
R: 1285  
W: 1308  
R: 1387  
W: 1321  
R: 1241  
W: 1636  
R: 1720  
W: 1975  
R: 510  
W: 669  
R: 933  
W: 1577  
R: 668  
W: 715  
R: 1779  
W: 1535  
R: 977  
W: 1116  
R: 1844  
W: 647  
R: 1042  
W: 1407  
R: 1128  
W: 304  
R: 873  
W: 296  
R: 55  
W: 577  
R: 1064  
W: 1926  
R: 1500  
W: 302  
R: 1187  
W: 839  
R: 1623  
W: 380  
R: 427  
W: 1295  
R: 307  
W: 938  
R: 1964  
W: 1240  
R: 467  
W: 585  
R: 1955  
W: 198  
R: 72

W: 884  
R: 1314  
W: 1916  
R: 1531  
W: 308  
R: 1275  
W: 612  
R: 613  
W: 101  
R: 908  
W: 668  
R: 678  
W: 1973  
R: 547  
W: 130  
R: 227  
W: 1734  
R: 970  
W: 1850  
R: 66  
W: 1397  
R: 1098  
W: 374  
R: 287  
W: 1014  
R: 1614  
W: 754  
R: 1599  
W: 1522  
R: 952  
W: 1672  
R: 358  
W: 219  
R: 1540  
W: 1890  
R: 527  
W: 768  
R: 454  
W: 1140  
R: 869  
W: 1362  
R: 1809  
W: 1547  
R: 1287  
W: 308  
R: 1677  
W: 1514  
R: 2042  
W: 599  
R: 1317  
W: 60  
R: 1997  
W: 367

R: 434

W: 236

## Output:

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Address: 0x00001804, Set: 0x0, Miss, Tag: 0x000018
Address: 0x00001174, Set: 0x0, Miss, Tag: 0x000011
Address: 0x00001545, Set: 0x0, Miss, Tag: 0x000015
Address: 0x00001604, Set: 0x0, Miss, Tag: 0x000016
Address: 0x00000381, Set: 0x1, Miss, Tag: 0x000003
Address: 0x00001455, Set: 0x0, Miss, Tag: 0x000014
Address: 0x00001753, Set: 0x0, Miss, Tag: 0x000017
Address: 0x00000402, Set: 0x0, Miss, Tag: 0x000004
Address: 0x00000503, Set: 0x0, Miss, Tag: 0x000005
Address: 0x00000854, Set: 0x0, Miss, Tag: 0x000008
Address: 0x00001130, Set: 0x0, Hit, Tag: 0x000011
Address: 0x00001091, Set: 0x1, Miss, Tag: 0x000010
Address: 0x00000532, Set: 0x0, Hit, Tag: 0x000005
Address: 0x00000700, Set: 0x0, Miss, Tag: 0x000007
Address: 0x00001729, Set: 0x0, Hit, Tag: 0x000017
Address: 0x00000667, Set: 0x0, Miss, Tag: 0x000006
Address: 0x00001705, Set: 0x0, Hit, Tag: 0x000017
Address: 0x00000799, Set: 0x1, Miss, Tag: 0x000007
Address: 0x00001746, Set: 0x0, Hit, Tag: 0x000017
Address: 0x00001799, Set: 0x1, Miss, Tag: 0x000017
Address: 0x00000502, Set: 0x0, Hit, Tag: 0x000005
Address: 0x00000205, Set: 0x0, Miss, Tag: 0x000002
Address: 0x00000384, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000719, Set: 0x0, Hit, Tag: 0x000007
Address: 0x00001415, Set: 0x0, Hit, Tag: 0x000014
Address: 0x00000599, Set: 0x1, Miss, Tag: 0x000005
Address: 0x00000600, Set: 0x0, Hit, Tag: 0x000006
Address: 0x00001599, Set: 0x1, Miss, Tag: 0x000015
Address: 0x00001702, Set: 0x0, Hit, Tag: 0x000017
Address: 0x00001510, Set: 0x0, Hit, Tag: 0x000015
Address: 0x00001073, Set: 0x0, Miss, Tag: 0x000010
Address: 0x00001458, Set: 0x0, Hit, Tag: 0x000014
Address: 0x00000636, Set: 0x0, Hit, Tag: 0x000006
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Address: 0x00001014, Set: 0x0, Hit, Tag: 0x000010
Address: 0x00001017, Set: 0x0, Hit, Tag: 0x000010
Address: 0x00002026, Set: 0x0, Miss, Tag: 0x000020
Address: 0x00000719, Set: 0x0, Hit, Tag: 0x000007
Address: 0x00001419, Set: 0x0, Hit, Tag: 0x000014
Address: 0x00000482, Set: 0x1, Miss, Tag: 0x000004
Address: 0x00001573, Set: 0x0, Hit, Tag: 0x000015
Address: 0x00000502, Set: 0x0, Hit, Tag: 0x000005
Address: 0x00001573, Set: 0x0, Hit, Tag: 0x000015
Address: 0x00000057, Set: 0x0, Miss, Tag: 0x000000
Address: 0x00001202, Set: 0x0, Miss, Tag: 0x000012
Address: 0x00001254, Set: 0x0, Hit, Tag: 0x000012
```

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Address: 0x00000005, Set: 0x0, Hit, Tag: 0x000000
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Address: 0x00000628, Set: 0x0, Hit, Tag: 0x000006
Address: 0x00000996, Set: 0x1, Miss, Tag: 0x000009
Address: 0x00001227, Set: 0x0, Hit, Tag: 0x000012
Address: 0x00002044, Set: 0x0, Hit, Tag: 0x000020
Address: 0x00001595, Set: 0x1, Hit, Tag: 0x000015
Address: 0x00001827, Set: 0x0, Hit, Tag: 0x000018
Address: 0x00001595, Set: 0x1, Hit, Tag: 0x000015
Address: 0x00001249, Set: 0x0, Hit, Tag: 0x000012
Address: 0x00001289, Set: 0x1, Miss, Tag: 0x000012
Address: 0x00000620, Set: 0x0, Hit, Tag: 0x000006
Address: 0x00000659, Set: 0x0, Hit, Tag: 0x000006
Address: 0x00001925, Set: 0x0, Miss, Tag: 0x000019
Address: 0x00001191, Set: 0x1, Miss, Tag: 0x000011
Address: 0x00001673, Set: 0x0, Miss, Tag: 0x000016
Address: 0x00000894, Set: 0x1, Miss, Tag: 0x000008
Address: 0x00001170, Set: 0x0, Hit, Tag: 0x000011
Address: 0x00000344, Set: 0x0, Miss, Tag: 0x000003
Address: 0x00000266, Set: 0x0, Hit, Tag: 0x000002
Address: 0x00001652, Set: 0x0, Hit, Tag: 0x000016
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Address: 0x00001177, Set: 0x0, Hit, Tag: 0x000011
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Address: 0x00001970, Set: 0x0, Hit, Tag: 0x000019
Address: 0x00000383, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00000650, Set: 0x0, Hit, Tag: 0x000006
Address: 0x00000782, Set: 0x1, Hit, Tag: 0x000007
Address: 0x00000389, Set: 0x1, Hit, Tag: 0x000003
Address: 0x00001073, Set: 0x0, Hit, Tag: 0x000010
Address: 0x00001394, Set: 0x1, Miss, Tag: 0x000013
Address: 0x00000897, Set: 0x1, Hit, Tag: 0x000008
Address: 0x00001702, Set: 0x0, Hit, Tag: 0x000017
Address: 0x00000342, Set: 0x0, Hit, Tag: 0x000003
Address: 0x00000076, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00001698, Set: 0x1, Miss, Tag: 0x000016
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Address: 0x00000131, Set: 0x0, Miss, Tag: 0x000001
Address: 0x00001766, Set: 0x0, Hit, Tag: 0x000017
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Address: 0x000001635, Set: 0x0, Hit, Tag: 0x0000016
Address: 0x000000903, Set: 0x0, Miss, Tag: 0x0000009
Address: 0x000000912, Set: 0x0, Hit, Tag: 0x0000009
Address: 0x000001561, Set: 0x0, Hit, Tag: 0x0000015
Address: 0x000000826, Set: 0x0, Hit, Tag: 0x0000008
Address: 0x000001295, Set: 0x1, Hit, Tag: 0x0000012
Address: 0x000000163, Set: 0x0, Hit, Tag: 0x0000001
Address: 0x000001608, Set: 0x0, Hit, Tag: 0x0000016
Address: 0x000001684, Set: 0x1, Hit, Tag: 0x0000016
Address: 0x000001237, Set: 0x0, Hit, Tag: 0x0000012
Address: 0x000000954, Set: 0x0, Hit, Tag: 0x0000009
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Address: 0x000000891, Set: 0x1, Hit, Tag: 0x0000008
Address: 0x000001296, Set: 0x1, Hit, Tag: 0x0000012
Address: 0x000000610, Set: 0x0, Hit, Tag: 0x0000006
Address: 0x000000541, Set: 0x0, Hit, Tag: 0x0000005
Address: 0x000001185, Set: 0x1, Hit, Tag: 0x0000011
Address: 0x000000466, Set: 0x0, Miss, Tag: 0x0000004
Address: 0x000001786, Set: 0x1, Hit, Tag: 0x0000017
Address: 0x000000275, Set: 0x0, Miss, Tag: 0x0000002
Address: 0x000001611, Set: 0x0, Hit, Tag: 0x0000016
Address: 0x000001603, Set: 0x0, Hit, Tag: 0x0000016
Address: 0x000000024, Set: 0x0, Hit, Tag: 0x0000000
Address: 0x000000586, Set: 0x1, Hit, Tag: 0x0000005
Address: 0x000000564, Set: 0x0, Hit, Tag: 0x0000005
Address: 0x000001446, Set: 0x0, Hit, Tag: 0x0000014
Address: 0x000000456, Set: 0x0, Hit, Tag: 0x0000004
Address: 0x000000695, Set: 0x1, Miss, Tag: 0x0000006
Address: 0x000001164, Set: 0x0, Miss, Tag: 0x0000011
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Address: 0x000000430, Set: 0x0, Hit, Tag: 0x0000004
Address: 0x000000751, Set: 0x0, Hit, Tag: 0x0000007
Address: 0x000001495, Set: 0x1, Miss, Tag: 0x0000014
Address: 0x000001342, Set: 0x0, Miss, Tag: 0x0000013
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Address: 0x000000273, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x000000590, Set: 0x1, Hit, Tag: 0x0000005
Address: 0x000000428, Set: 0x0, Hit, Tag: 0x0000004
Address: 0x000001881, Set: 0x1, Miss, Tag: 0x0000018
Address: 0x000000226, Set: 0x0, Hit, Tag: 0x0000002
Address: 0x000001665, Set: 0x0, Miss, Tag: 0x0000016
Address: 0x000000788, Set: 0x1, Hit, Tag: 0x0000007
Address: 0x000000760, Set: 0x0, Hit, Tag: 0x0000007
Address: 0x000000508, Set: 0x0, Miss, Tag: 0x0000005
Address: 0x000000036, Set: 0x0, Miss, Tag: 0x0000000
Address: 0x000001370, Set: 0x0, Hit, Tag: 0x0000013
Address: 0x000001049, Set: 0x0, Miss, Tag: 0x0000010
Address: 0x000001222, Set: 0x0, Miss, Tag: 0x0000012
Address: 0x000001836, Set: 0x0, Hit, Tag: 0x0000018
Address: 0x000000787, Set: 0x1, Hit, Tag: 0x0000007
Address: 0x000001497, Set: 0x1, Hit, Tag: 0x0000014
Address: 0x000001399, Set: 0x1, Hit, Tag: 0x0000013
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Address: 0x00001986, Set: 0x1, Miss, Tag: 0x0000019  
Address: 0x00000907, Set: 0x0, Miss, Tag: 0x0000009  
Address: 0x00000920, Set: 0x0, Hit, Tag: 0x0000009  
Address: 0x00000394, Set: 0x1, Hit, Tag: 0x0000003  
Address: 0x00001602, Set: 0x0, Hit, Tag: 0x0000016  
Address: 0x00000037, Set: 0x0, Hit, Tag: 0x0000000  
Address: 0x00000985, Set: 0x1, Hit, Tag: 0x0000009  
Address: 0x00002033, Set: 0x0, Miss, Tag: 0x0000020  
Address: 0x00000788, Set: 0x1, Hit, Tag: 0x0000007  
Address: 0x00000432, Set: 0x0, Miss, Tag: 0x0000004  
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Address: 0x00001053, Set: 0x0, Hit, Tag: 0x0000010  
Address: 0x00000705, Set: 0x0, Hit, Tag: 0x0000007  
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Address: 0x00000539, Set: 0x0, Hit, Tag: 0x0000005  
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Address: 0x00000856, Set: 0x0, Hit, Tag: 0x0000008  
Address: 0x00001606, Set: 0x0, Hit, Tag: 0x0000016  
Address: 0x00001363, Set: 0x0, Hit, Tag: 0x0000013  
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Address: 0x00000607, Set: 0x0, Miss, Tag: 0x0000006  
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Address: 0x00000237, Set: 0x0, Hit, Tag: 0x000002  
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Address: 0x00000809, Set: 0x0, Hit, Tag: 0x000008  
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Address: 0x00001906, Set: 0x0, Hit, Tag: 0x000019  
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Address: 0x00001727, Set: 0x0, Hit, Tag: 0x000017  
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Address: 0x00000138, Set: 0x0, Hit, Tag: 0x000001  
Address: 0x00000443, Set: 0x0, Hit, Tag: 0x000004  
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Address: 0x00001251, Set: 0x0, Hit, Tag: 0x000012  
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Address: 0x00000550, Set: 0x0, Miss, Tag: 0x000005  
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Address: 0x00000728, Set: 0x0, Miss, Tag: 0x000007  
Address: 0x00000148, Set: 0x0, Hit, Tag: 0x000001  
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Address: 0x00000971, Set: 0x0, Miss, Tag: 0x000009  
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Address: 0x00000913, Set: 0x0, Hit, Tag: 0x000009  
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Address: 0x00001147, Set: 0x0, Hit, Tag: 0x000011

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Address: 0x00000634, Set: 0x0, Hit, Tag: 0x000006  
Address: 0x00000220, Set: 0x0, Hit, Tag: 0x000002



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Address: 0x00001343, Set: 0x0, Miss, Tag: 0x000013
Address: 0x00002046, Set: 0x0, Miss, Tag: 0x000020
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Address: 0x00000824, Set: 0x0, Hit, Tag: 0x0000008  
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Address: 0x00001487, Set: 0x1, Hit, Tag: 0x0000014  
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Address: 0x00000434, Set: 0x0, Hit, Tag: 0x0000004  
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Address: 0x00001645, Set: 0x0, Hit, Tag: 0x0000016  
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Address: 0x00000066, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00001397, Set: 0x1, Miss, Tag: 0x000013
Address: 0x00001098, Set: 0x1, Miss, Tag: 0x000010
Address: 0x00000374, Set: 0x0, Miss, Tag: 0x000003
Address: 0x00000287, Set: 0x1, Hit, Tag: 0x000002
Address: 0x00001014, Set: 0x0, Miss, Tag: 0x000010
Address: 0x00001614, Set: 0x0, Miss, Tag: 0x000016
Address: 0x00000754, Set: 0x0, Hit, Tag: 0x000007
Address: 0x00001599, Set: 0x1, Hit, Tag: 0x000015
Address: 0x00001522, Set: 0x0, Miss, Tag: 0x000015
Address: 0x00000952, Set: 0x0, Hit, Tag: 0x000009
Address: 0x00001672, Set: 0x0, Hit, Tag: 0x000016
Address: 0x00000358, Set: 0x0, Hit, Tag: 0x000003
Address: 0x00000219, Set: 0x0, Hit, Tag: 0x000002
Address: 0x00001540, Set: 0x0, Hit, Tag: 0x000015
Address: 0x00001890, Set: 0x1, Miss, Tag: 0x000018
Address: 0x00000527, Set: 0x0, Hit, Tag: 0x000005
Address: 0x00000768, Set: 0x0, Hit, Tag: 0x000007
Address: 0x00000454, Set: 0x0, Hit, Tag: 0x000004
Address: 0x00001140, Set: 0x0, Miss, Tag: 0x000011
Address: 0x00000869, Set: 0x0, Hit, Tag: 0x000008
Address: 0x00001362, Set: 0x0, Hit, Tag: 0x000013
Address: 0x00001809, Set: 0x0, Miss, Tag: 0x000018
Address: 0x00001547, Set: 0x0, Hit, Tag: 0x000015
Address: 0x00001287, Set: 0x1, Hit, Tag: 0x000012
Address: 0x00000308, Set: 0x0, Miss, Tag: 0x000003
Address: 0x00001677, Set: 0x0, Miss, Tag: 0x000016
Address: 0x00001514, Set: 0x0, Hit, Tag: 0x000015
Address: 0x00002042, Set: 0x0, Hit, Tag: 0x000020
Address: 0x00000599, Set: 0x1, Hit, Tag: 0x000005
Address: 0x00001317, Set: 0x0, Hit, Tag: 0x000013
Address: 0x00000060, Set: 0x0, Hit, Tag: 0x000000
Address: 0x00001997, Set: 0x1, Hit, Tag: 0x000019
Address: 0x00000367, Set: 0x0, Hit, Tag: 0x000003
Address: 0x00000434, Set: 0x0, Hit, Tag: 0x000004
Address: 0x00000236, Set: 0x0, Hit, Tag: 0x000002
```