

York University  
Dept. of Computer Science and Engineering  
CSE4201  
HW 1  
Due Feb. 9, 2009

Assume a memory space of 16 bits. How many misses, and what is the content of the cache after the following memory reference sequence.

0x0412    0x1412        0x1514        0x7413        0x2412        0x0413  
0x7444    0x2814

1. Considering a direct mapped cache with total data size of 4KB and a line size of 8 bytes.
2. Considering a fully associative cache (same size and line size as above).
3. 2-way set associative cache (same size and line size as above).
4. 4-way set associative cache (same size and line size as above).