# Question

1. coldmisses : 2 ∗ (4096/16) = 512

as every 16th iteration will miss on the load to X and to Y, for the first time conflictmisses : 4096 + (15/16) ∗ 4096 = 4096 + 3840 = 7936

as every store to X will miss because it was displaced by the previous load to Y, and as every load to the remaining 15 elements of Y in a line will miss because they were displaced by the previous store to X

total : 512 + 7936 = 8448 misses

So: missrate : 8448/12288 = 0.6875 (68.75%) as there are 3 ∗ 4096 = 12288 memory references in the loop

1. coldmisses : 2 ∗ (4096/16) = 512 as every 16th iteration will miss on the load to X and on the load to Y

conflict misses: 0

total: 512 misses

So: missrate: 512/12288 = 0.0417 (4.17%)

1. coldmisses: 4096/ (16 ∗ z)

as every 16\*z’th iteration will miss on the load to

conflictmisses : 2 ∗ 4096 = 8192

as every load to Y will cause a conflict with the just-loaded line of X and every store

to X will cause a conflict with the just-loaded line of Y