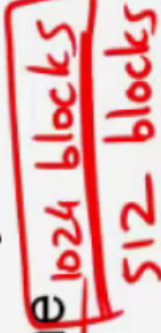


# Types of Cache Misses



3 C's → 800 diff blocks Miss Hit

• Compulsory misses: happens the first time a memory word is accessed – the misses for an infinite cache

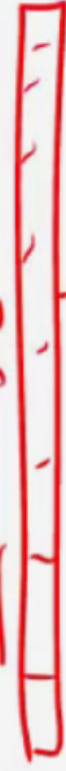


A B C D . . . . . A

• Capacity misses: happens because the program touched many other words before re-touching the same word – the misses for a fully-associative cache

Miss

512 blocks



• Conflict misses: happens because two words map to the same location in the cache – the misses generated while moving from a fully-associative to a direct-mapped cache



• Sidenote: can a fully-associative cache have more misses than a direct-mapped cache of the same size?