

Sample Size N = 25

1- Direct Mapped Caches

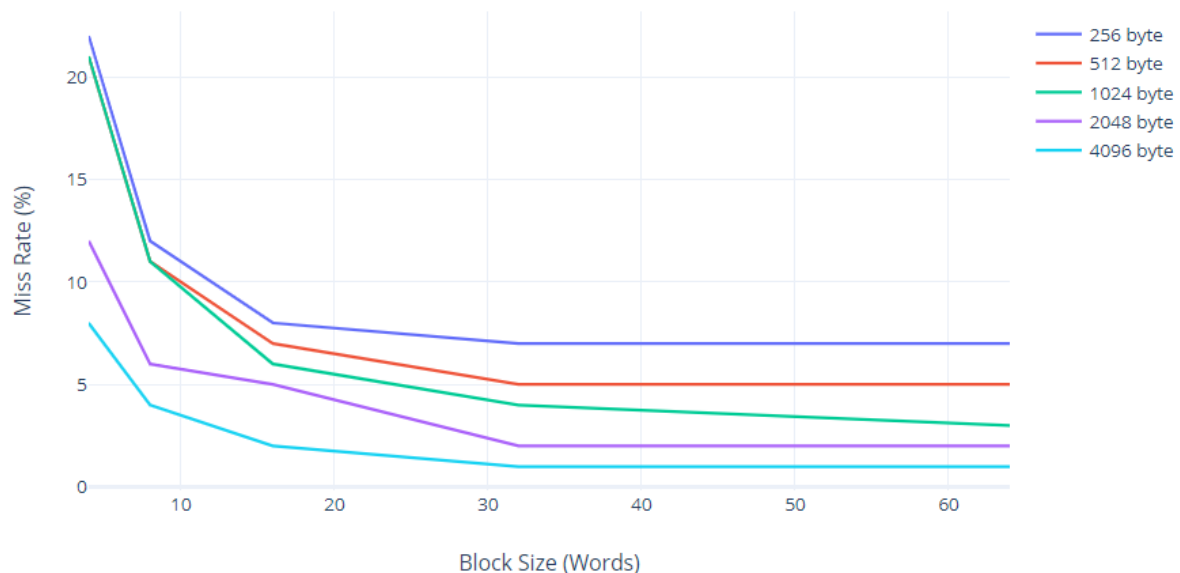
1.1- Testing for the row-major addition

Block Size/ Cache Size (Bytes)	4	8	16	32	64
256	Miss Rate: 22% Miss Count: 741	Miss Rate:12% Miss Count: 420	Miss Rate:8% Miss Count: 276	Miss Rate:7% Miss Count: 236	Miss Rate:7% Miss Count: 252
512	Miss Rate:21% Miss Count: 718	Miss Rate:11% Miss Count: 390	Miss Rate:7% Miss Count: 226	Miss Rate:5% Miss Count: 170	Miss Rate:5% Miss Count: 177
1024	Miss Rate:%21 Miss Count: 710	Miss Rate:%11 Miss Count: 374	Miss Rate:%6 Miss Count: 210	Miss Rate:%4 Miss Count: 138	Miss Rate:%3 Miss Count: 118
2048	Miss Rate:%12 Miss Count: 404	Miss Rate:%6 Miss Count: 218	Miss Rate:%4 Miss Count: 129	Miss Rate:%2 Miss Count: 85	Miss Rate:%2 Miss Count: 75
4096	Miss Rate:%8 Miss Count: 264	Miss Rate:%4 Miss Count: 144	Miss Rate:%2 Miss Count: 77	Miss Rate:%1 Miss Count: 51	Miss Rate:%1 Miss Count: 50

1.2- Testing for the column-major addition

Block Size/ Cache Size (Bytes)	4	8	16	32	64
256	Miss Rate: 49% Miss Count: 1680	Miss Rate:77% Miss Count: 2640	Miss Rate:76% Miss Count: 2624	Miss Rate:61% Miss Count: 2088	Miss Rate:33% Miss Count: 1116
512	Miss Rate:25% Miss Count: 854	Miss Rate:66% Miss Count: 2272	Miss Rate:76% Miss Count: 2594	Miss Rate:61% Miss Count: 2082	Miss Rate:32% Miss Count: 1113
1024	Miss Rate:%23 Miss Count: 799	Miss Rate:%26 Miss Count: 908	Miss Rate:%60 Miss Count: 2046	Miss Rate:%61 Miss Count: 2082	Miss Rate:%32 Miss Count: 1110
2048	Miss Rate:%13 Miss Count: 463	Miss Rate:%10 Miss Count: 345	Miss Rate:%18 Miss Count: 627	Miss Rate:%25 Miss Count: 865	Miss Rate:%6 Miss Count: 218
4096	Miss Rate:%8 Miss Count: 281	Miss Rate:%6 Miss Count: 193	Miss Rate:%6 Miss Count: 190	Miss Rate:%7 Miss Count: 235	Miss Rate:%6 Miss Count: 218

1.3- Graph of the table in part 1.1



2-Fully Associative Caches

	Hit Rate: Good Cache Size: 4096 Block Size: 16	Hit Rate: Mediocre Cache Size: 1024 Block Size: 64	Hit Rate: Bad Cache Size: 256 Block Size: 16
Fully Associative (LRU)	Miss Rate: 1% Miss Count: 45	Miss Rate: 32% Miss Count: 1110	Miss Rate: 76% Miss Count: 2621
Fully Associative (Random)	Miss Rate: 1% Miss Count: 45	Miss Rate: 30% Miss Count: 1045	Miss Rate: 76% Miss Count: 2622
Direct Mapping	Miss Rate: 6% Miss Count: 190	Miss Rate: 32% Miss Count: 1110	Miss Rate: 76% Miss Count: 2624

3-N-way Set Associative Caches

N-way Set Associative Cache: Set Size	Hit Rate: Good Cache Size: 4096 Block Size: 16	N-way Set Associative Cache: Set Size	Hit Rate: Mediocre Cache Size: 1024 Block Size: 64	N-way Set Associative Cache: Set Size	Hit Rate: Bad Cache Size: 256 Block Size: 16
4	Miss Rate: 1% Miss Count: 45	1	Miss Rate: 32% Miss Count: 1110	1	Miss Rate: 76% Miss Count: 2624
8	Miss Rate: 1% Miss Count: 45	2	Miss Rate: 31% Miss Count: 1064	2	Miss Rate: 76% Miss Count: 2624
32	Miss Rate: 1% Miss Count: 45	4	Miss Rate: 31% Miss Count: 1047	4	Miss Rate: 76% Miss Count: 2622

Sample Size N = 100

1- Direct Mapped Caches

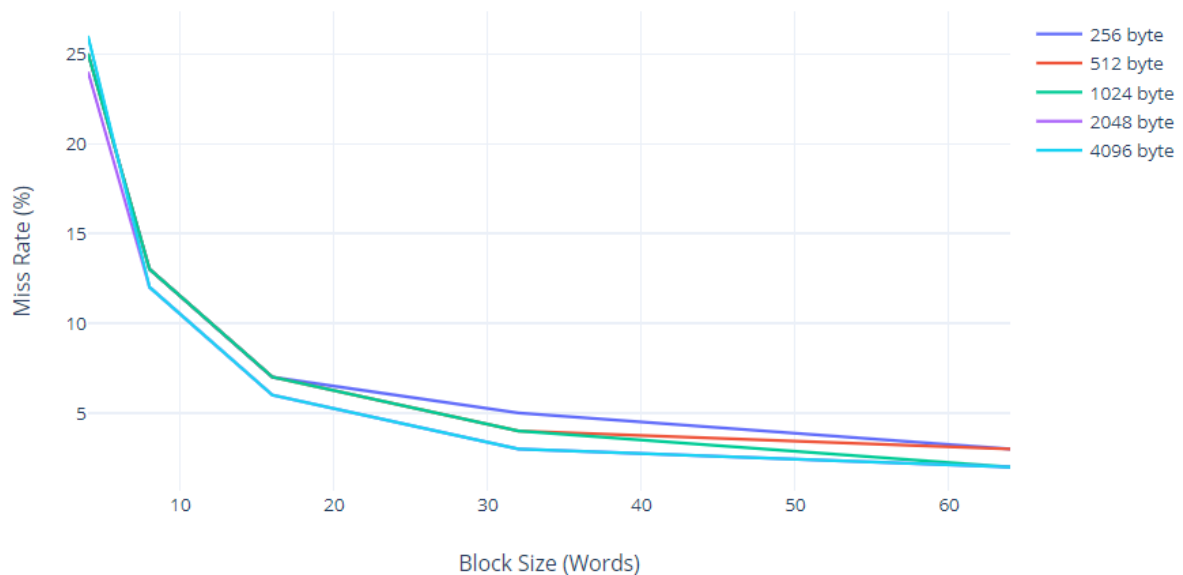
1.1- Testing for the row-major addition

Block Size/ Cache Size (Bytes)	4	8	16	32	64
256	Miss Rate: 25% Miss Count: 10489	Miss Rate:13% Miss Count: 5492	Miss Rate:7% Miss Count: 3028	Miss Rate:5% Miss Count: 1876	Miss Rate:3% Miss Count: 1440
512	Miss Rate:25% Miss Count: 10401	Miss Rate:13% Miss Count: 5401	Miss Rate:7% Miss Count: 2934	Miss Rate:4% Miss Count: 1770	Miss Rate:3% Miss Count: 1241
1024	Miss Rate: 25% Miss Count: 10230	Miss Rate:%13 Miss Count: 5222	Miss Rate:%7 Miss Count: 2730	Miss Rate:%4 Miss Count: 1530	Miss Rate:2% Miss Count: 994
2048	Miss Rate:%24 Miss Count: 10142	Miss Rate:%12 Miss Count: 5126	Miss Rate:%6 Miss Count: 2618	Miss Rate:%3 Miss Count: 1386	Miss Rate:%2 Miss Count: 802
4096	Miss Rate:%26 Miss Count: 10102	Miss Rate:%12 Miss Count: 5086	Miss Rate:%6 Miss Count: 2578	Miss Rate:%3 Miss Count: 1330	Miss Rate:%2 Miss Count: 714

1.2- Testing for the column-major addition

Block Size/ Cache Size (Bytes)	4	8	16	32	64
256	Miss Rate: 97% Miss Count: 40461	Miss Rate:97% Miss Count: 40440	Miss Rate:97% Miss Count: 40424	Miss Rate:97% Miss Count: 40420	Miss Rate:97% Miss Count: 40416
512	Miss Rate:97% Miss Count: 40458	Miss Rate:97% Miss Count: 40434	Miss Rate:97% Miss Count: 40418	Miss Rate:97% Miss Count: 40414	Miss Rate:97% Miss Count: 40413
1024	Miss Rate:%78 Miss Count: 32235	Miss Rate:%97 Miss Count: 40434	Miss Rate: 97% Miss Count: 40418	Miss Rate:97% Miss Count: 40414	Miss Rate:%97 Miss Count: 40410
2048	Miss Rate:%26 Miss Count: 10729	Miss Rate:78% Miss Count: 32220	Miss Rate:%97 Miss Count: 40418	Miss Rate: 97% Miss Count: 40414	Miss Rate:%97 Miss Count: 40410
4096	Miss Rate:%25 Miss Count: 10428	Miss Rate:%68 Miss Count: 28082	Miss Rate:%83 Miss Count: 34321	Miss Rate:%97 Miss Count: 40414	Miss Rate:%97 Miss Count: 40410

1.3- Graph of the table in part 1.1



2-Fully Associative Caches

	Hit Rate: Good Cache Size: 4096 Block Size: 4	Hit Rate: Mediocre Cache Size: 4096 Block Size: 8	Hit Rate: Bad Cache Size: 256 Block Size: 4
Fully Associative (LRU)	Miss Rate: 24% Miss Count: 10161	Miss Rate: 12% Miss Count: 5137	Miss Rate: 24% Miss Count: 10161
Fully Associative (Random)	Miss Rate: 31% Miss Count: 12777	Miss Rate: 29% Miss Count: 12075	Miss Rate: 31% Miss Count: 12859
Direct Mapping	Miss Rate: %25 Miss Count: 10428	Miss Rate: %68 Miss Count: 28082	Miss Rate: 97% Miss Count: 40461

3-N-way Set Associative Caches

N-way Set Associative Cache: Set Size	Hit Rate: Good Cache Size: 4096 Block Size: 4	Hit Rate: Mediocre Cache Size: 4096 Block Size: 8	N-way Set Associative Cache: Set Size	Hit Rate: Bad Cache Size: 256 Block Size: 4
4	Miss Rate: 24% Miss Count: 10161	Miss Rate: 13% Miss Count: 5469	4	Miss Rate: 97% Miss Count: 40424
8	Miss Rate: 24% Miss Count: 10161	Miss Rate: 12% Miss Count: 5137	8	Miss Rate: 97% Miss Count: 40422
32	Miss Rate: 24% Miss Count: 10161	Miss Rate: 12% Miss Count: 5137	16	Miss Rate: 97% Miss Count: 40414