```
./sim -f ./traceprogs/tr-simpleloop.ref -m <50-200> -s 961 -a <alg>
```

	MEM	50	100	150	200
FIFO	Hit count	7270	7485	7525	7533
	Miss count	2970	2755	2715	2707
	Clean evictions	327	162	133	129
	Dirty evictions	2593	2493	2432	2378
	Total references	10240	10240	10240	10240
	Hit rate	70.9961	73.0957	73.4863	73.5645
	Miss rate	29.0039	26.9043	26.5137	26.4355

	MEM	50	100	150	200
RAND	Hit count	7249	7480	7529	7526
	Miss count	2991	2760	2711	2714
	Clean evictions	350	164	132	129
	Dirty evictions	2591	2496	2429	2385
	Total references	10240	10240	10240	10240
	Hit rate	70.7910	73.0469	73.5254	73.4961
	Miss rate	29.2090	26.9531	26.4746	26.5039

	MEM	50	100	150	200
LRU	Hit count	7462	7558	7559	7559
	Miss count	2778	2682	2681	2681
	Clean evictions	205	117	116	116
	Dirty evictions	2523	2465	2415	2365
	Total references	10240	10240	10240	10240
	Hit rate	72.8711	73.8086	73.8184	73.8184
	Miss rate	27.1289	26.1914	26.1816	26.1816

	MEM	50	100	150	200
CLOCK	Hit count	7463	7553	7558	7558
	Miss count	2777	2687	2682	2682
	Clean evictions	201	120	116	116
	Dirty evictions	2526	2467	2416	2366
	Total references	10240	10240	10240	10240
	Hit rate	72.8809	73.7598	73.8086	73.8086
	Miss rate	27.1191	26.2402	26.1914	26.1914

	MEM	50	100	150	200
ARC	Hit count				
	Miss count				
	Clean evictions				
	Dirty evictions				
	Total references				
	Hit rate				
	Miss rate				

`./sim -f ./traceprogs/tr-matmul.ref -m <50-200> -s 961 -a <alg>`

	MEM	50	100	150	200
FIFO	Hit count	1760622	1804347	2853480	2854001
	Miss count	1127266	1083541	34408	33887
	Clean evictions	1083358	1061341	33063	32553
	Dirty evictions	43858	22100	1195	1134
	Total references	2887888	2887888	2887888	2887888
	Hit rate	60.9657	62.4798	98.8085	98.8266
	Miss rate	39.0343	37.5202	1.1915	1.1734

	MEM	50	100	150	200
RAND	Hit count	1892750	2563321	2791370	2831556
	Miss count	995138	324567	96518	56332
	Clean evictions	955698	316967	94132	54582
	Dirty evictions	39390	7500	2236	1550
	Total references	2887888	2887888	2887888	2887888
	Hit rate	65.5410	88.7611	96.6578	98.0494
	Miss rate	34.4590	11.2389	3.3422	1.9506

	MEM	50	100	150	200
LRU	Hit count	1846665	1881435	2855003	2855014
	Miss count	1041223	1006453	32885	32874
	Clean evictions	1040197	1005393	31775	31714
	Dirty evictions	976	960	960	960
	Total references	2887888	2887888	2887888	2887888
	Hit rate	63.9452	65.1492	98.8613	98.8617
	Miss rate	36.0548	34.8508	1.1387	1.1383

	MEM	50	100	150	200
CLOCK	Hit count	1846660	1886093	2853174	2855001
	Miss count	1041228	1001795	34714	32887
	Clean evictions	1040202	1000733	33603	31727
	Dirty evictions	976	962	961	960
	Total references	2887888	2887888	2887888	2887888
	Hit rate	63.9450	65.3105	98.7979	98.8612
	Miss rate	36.0550	34.6895	1.2021	1.1388

	MEM	50	100	150	200
ARC	Hit count				
	Miss count				
	Clean evictions				
	Dirty evictions				
	Total references	2887888	2887888	2887888	2887888
	Hit rate				
	Miss rate				

`./sim -f ./traceprogs/tr-blocked.ref -m <50-200> -s 961 -a <alg>`

	MEM	50	100	150	200
FIFO	Hit count	2411657	2413818	2413928	2414980
	Miss count	6495	4334	4224	3172
	Clean evictions	4306	2878	2773	1996
	Dirty evictions	2139	1356	1301	976
	Total references	2418152	2418152	2418152	2418152
	Hit rate	99.7314	99.8208	99.8253	99.8688
	Miss rate	0.2686	0.1792	0.1747	0.1312

	MEM	50	100	150	200
RAND	Hit count	2409718	2412925	2413766	2414294
	Miss count	8434	5227	4386	3858
	Clean evictions	5937	3520	2896	2444
	Dirty evictions	2447	1607	1340	1214
	Total references	2418152	2418152	2418152	2418152
	Hit rate	99.6512	99.7838	99.8186	99.8405
	Miss rate	0.3488	0.2162	0.1814	0.1595

	MEM	50	100	150	200
LRU	Hit count	2412940	2414370	2414385	2414458
	Miss count	5212	3782	3767	3694
	Clean evictions	2944	2722	2677	2554
	Dirty evictions	2218	960	940	940
	Total references	2418152	2418152	2418152	2418152
	Hit rate	99.7845	99.8436	99.8442	99.8472
	Miss rate	0.2155	0.1564	0.1558	0.1528

	MEM	50	100	150	200
CLOCK	Hit count	2412393	2413843	2414373	2414944
	Miss count	5759	4309	3779	3208
	Clean evictions	3412	2733	2689	2059
	Dirty evictions	2297	1476	940	949
	Total references	2418152	2418152	2418152	2418152
	Hit rate	99.7618	99.8218	99.8437	99.8673
	Miss rate	0.2382	0.1782	0.1563	0.1327

	MEM	50	100	150	200
ARC	Hit count				
	Miss count				
	Clean evictions				
	Dirty evictions				
	Total references	2418152	2418152	2418152	2418152
	Hit rate				
	Miss rate				

Comparing the various algorithms:

When it comes to performance (Hit rates) we can see that the trend is the following:
RAND < FIFO < LRU ~= CLOCK
We can also notice that as the MEM size increases, so does the hit rate, which is to be expected due to the fact that it captures more memory and reduce the dirty evictions. So, we can deduct that having a more optimal replacement policy has more effects on the performance when the memory size is lower.

Explaining the data as the size of memory increases:

For LRU we can see that as the memory size increases, the hit rate increases as well. Also, we can see that the miss count, dirty eviction and clean eviction decreases. An anomaly happens in matmul, while hit count is always increasing as the memory increases but there is a large sudden jump between memory size 100 and 150, from 65.14 to 98.86, which is considerably larger than the increase from 150 to 20. Although this jump can also be seen in other algorithms.