```
Configuration: config/l1-small 8
               Simulation Results
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Memory System:
    D Cache: Size = 4096, Associativity = 1, Block size = 32
    I Cache: Size = 4096, Associativity = 1, Block size = 32
    L2 Unified Cache: Size = 32768, Associativity = 1, Block size = 64
    Main Memory: Ready time = 30, Chunksize = 8, Chunktime = 15,
Execution Time = 105391966545, Total Traces Read = 16506492546
Flush time = 1906842466
Total time (Execution Time + Flush Time) = 107298809011
Number of Reference Types: [Percentage]
   Reads = 3526260463
                                 [21.4%]
   Writes = 492653573
                                 [3.0%]
   Inst. = 12487578510
                                  [75.7%]
   Total = 16506492546
                              [Percentage]
Total Cycles for Activities:
   Reads = 87279588970
                                 [82.8%]
   Writes = 1333042580
                                 [1.3%]
   Inst. = 16779334995
                                 [15.9%]
   Total = 105391966545
Average Cycles for Activities:
   Reads = 24.8, Writes = 2.7, Instructions = 8.4
Ideal: Execution Time = 28994071056; CPI = 2.3
Ideal Misaligned Execution Time = 35948584560; CPI = 2.9
Memory Level: L1 Instruction Cache
   Hit Count = 16620426703, Miss Count = 962350
   Total Requests = 16621389053
   Hit Rate: 100.0%, Miss Rate = 0.0%
   Kickouts = 64184,
                       Dirty-kickouts = 0,
                                             Transfers = 962350
   Flush Kickouts = 0
Memory Level: L1 Data Cache
   Hit Count = 6246253316,
                               Miss Count = 593363681
   Total Requests = 6839616997
   Hit Rate: 91.3%, Miss Rate = 8.7%
   Kickouts = 349647086, Dirty-kickouts = 238156403, Transfers = 593363681
   Flush Kickouts = 2307529
Memory Level: L2 Cache
   Hit Count = 540295248, Miss Count = 294494715
   Total Requests = 834789963
   Hit Rate: 64.7%, Miss Rate = 35.3%
   Kickouts = 147114586, Dirty-kickouts = 125316930, Transfers = 294494715
   Flush Kickouts = 10340037
System Costs:
    L1 Cache Costs (Instruction Cache $100 + Data Cache $100) = $200
    L2 Cache Costs: $50
    Main Memory Costs: $75
    Total Memory Cost: $325
Flushes = 43438, Invalidates = 28520798
```