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Configuration: config/l1-small 64
              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 = 64,
                                                  Chunktime = 15,
Execution Time = 41632820544, Total Traces Read = 10000000109
Flush time = 273126408
Total time (Execution Time + Flush Time) = 41905946952
Number of Reference Types: [Percentage]
   Reads = 1907768017
                                 [19.1\%]
   Writes = 727693598
                                 [7.3%]
   Inst. = 7364538494
                                 [73.6%]
   Total = 10000000109
                              [Percentage]
Total Cycles for Activities:
   Reads = 12394705957
                                [29.8%]
   Writes = 4785841356
                                 [11.5\%]
   Inst. = 24452273231
                                 [58.7%]
   Total = 41632820544
Average Cycles for Activities:
   Reads = 6.5, Writes = 6.6, Instructions = 5.7
Ideal: Execution Time = 17364538603; CPI = 2.4
Ideal Misaligned Execution Time = 23214492795; CPI = 3.2
Memory Level: L1 Instruction Cache
   Hit Count = 12184328795, Miss Count = 368046997
   Total Requests = 12552375792
   Hit Rate: 97.1%, Miss Rate = 2.9%
   Kickouts = 364700838, Dirty-kickouts = 0, Transfers = 368046997
   Flush Kickouts = 0
Memory Level: L1 Data Cache
   Hit Count = 2972931405,
                              Miss Count = 324647104
   Total Requests = 3297578509
   Hit Rate: 90.2%, Miss Rate = 9.8%
   Kickouts = 199920228, Dirty-kickouts = 121369808, Transfers = 324647104
   Flush Kickouts = 1363469
Memory Level: L2 Cache
   Hit Count = 637234773, Miss Count = 178192605
   Total Requests = 815427378
   Hit Rate: 78.1%, Miss Rate = 21.9%
   Kickouts = 132010164, Dirty-kickouts = 34543338, Transfers = 178192605
   Flush Kickouts = 3498721
System Costs:
    L1 Cache Costs (Instruction Cache $100 + Data Cache $100) = $200
    L2 Cache Costs: $50
    Main Memory Costs: $275
    Total Memory Cost: $525
Flushes = 26315, Invalidates = 18341642
```