```
Configuration: config/default_16

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                Simulation Results
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Memory System:
     D Cache: Size = 8192,  Associativity = 1,  Block size = 32
     I Cache: Size = 8192,  Associativity = 1,  Block size = 32
     L2 Unified Cache: Size = 32768,    Associativity = 1,  Block size = 64
     Main Memory: Ready time = 30,  Chunksize = 16,     Chunktime = 15,

Execution Time = 42303006013,   Total Traces Read = 10000000109
Flush time = 657881052
Total time (Execution Time + Flush Time) = 42960887065

Number of Reference Types:  [Percentage]
    Reads   =   1907768017          [19.1%]
    Writes  =   727693598           [7.3%]
    Inst.   =   7364538494          [73.6%]
    Total   =   10000000109

Total Cycles for Activities:    [Percentage]
    Reads   =   11851058806         [28.0%]
    Writes  =   5813235809          [13.7%]
    Inst.   =   24638711398         [58.2%]
    Total   =   42303006013

Average Cycles for Activities:
    Reads = 6.2,    Writes = 8.0,   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 = 12314455056,     Miss Count = 237920736
    Total Requests = 12552375792
    Hit Rate: 98.1%,     Miss Rate = 1.9%
    Kickouts = 231418878,    Dirty-kickouts = 0,     Transfers = 237920736
    Flush Kickouts = 0

Memory Level: L1 Data Cache
    Hit Count = 3107721819,      Miss Count = 189856690
    Total Requests = 3297578509
    Hit Rate: 94.2%,     Miss Rate = 5.8%
    Kickouts = 109219257,    Dirty-kickouts = 74393184,      Transfers = 189856690
    Flush Kickouts = 2737832

Memory Level: L2 Cache
    Hit Count = 357568698,   Miss Count = 147339744
    Total Requests = 504908442
    Hit Rate: 70.8%,     Miss Rate = 29.2%
    Kickouts = 106105637,    Dirty-kickouts = 29544751,      Transfers = 147339744
    Flush Kickouts = 4091163


System Costs:
     L1 Cache Costs (Instruction Cache $200 + Data Cache $200) = $400
     L2 Cache Costs: $50
     Main Memory Costs: $75
     Total Memory Cost: $525

Flushes = 26315, Invalidates = 24434543

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