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Configuration: config/all-fa 16
               Simulation Results
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Memory System:
    D Cache: Size = 8192, Associativity = 256, Block size = 32 I Cache: Size = 8192, Associativity = 256, Block size = 32
     L2 Unified Cache: Size = 32768, Associativity = 512, Block size = 64
    Main Memory: Ready time = 30, Chunksize = 16,
                                                     Chunktime = 15,
Execution Time = 28931355917, Total Traces Read = 10000000109
Flush time = 305424115
Total time (Execution Time + Flush Time) = 29236780032
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 = 5739883678
                                 [19.8%]
    Writes = 3940524760
                                   [13.6%]
    Inst. = 19250947479
                                   [66.5%]
    Total = 28931355917
Average Cycles for Activities:
    Reads = 3.0, Writes = 5.4, Instructions = 3.9
Ideal: Execution Time = 17364538603; CPI = 2.4
Ideal Misaligned Execution Time = 23214492795; CPI = 3.2
Memory Level: L1 Instruction Cache
    Hit Count = 12304076483, Miss Count = 248299309
    Total Requests = 12552375792
    Hit Rate: 98.0%, Miss Rate = 2.0%
    Kickouts = 241606304, Dirty-kickouts = 0, Transfers = 248299309
    Flush Kickouts = 0
Memory Level: L1 Data Cache
    Hit Count = 3227625215,
                                Miss Count = 69953294
    Total Requests = 3297578509
    Hit Rate: 97.9%, Miss Rate = 2.1%
Kickouts = 27881150, Dirty-kickouts = 35335248, Transfers = 69953294
    Flush Kickouts = 3291874
Memory Level: L2 Cache
    Hit Count = 299626846, Miss Count = 57252879
    Total Requests = 356879725
    Hit Rate: 84.0%, Miss Rate = 16.0%

Kickouts = 30413302, Dirty-kickouts = 13367945, Transfers = 57252879
    Flush Kickouts = 2532303
System Costs:
     L1 Cache Costs (Instruction Cache $1800 + Data Cache $1800) = $3600
     L2 Cache Costs: $500
    Main Memory Costs: $75
     Total Memory Cost: $4175
Flushes = 26315, Invalidates = 26900509
```