```
Configuration: config/all-fa 8
               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 = 8, Chunktime = 15,
Execution Time = 48045463862, Total Traces Read = 10000000073
Flush time = 280286560
Total time (Execution Time + Flush Time) = 48325750422
Number of Reference Types: [Percentage]
    Reads = 1882275327
                                  [18.8%]
    Writes = 552506959
                                   [5.5%]
   Inst. = 7565217787
                                   [75.7%]
    Total = 10000000073
                               [Percentage]
Total Cycles for Activities:
    Reads = 18855665789
                                  [39.2%]
    Writes = 17011591941
                                   [35.4%]
    Inst. = 12178206132
                                   [25.3%]
   Total = 48045463862
Average Cycles for Activities:
    Reads = 10.0, Writes = 30.8, Instructions = 6.4
Ideal: Execution Time = 17565217860;
                                     CPI = 2.3
Ideal Misaligned Execution Time = 22199500705; CPI = 2.9
Memory Level: L1 Instruction Cache
    Hit Count = 12095352780, Miss Count = 729742
   Total Requests = 12096082522
    Hit Rate: 100.0%, Miss Rate = 0.0%
   Kickouts = 1681,
                        Dirty-kickouts = 0,
                                               Transfers = 729742
    Flush Kickouts = 0
Memory Level: L1 Data Cache
    Hit Count = 2380675441,
                                Miss Count = 157524955
    Total Requests = 2538200396
   Hit Rate: 93.8%, Miss Rate = 6.2%

Kickouts = 89788427, Dirty-kickouts = 60999845, Transfers = 157524955
    Flush Kickouts = 1598968
Memory Level: L2 Cache
    Hit Count = 92526299, Miss Count = 128327211
    Total Requests = 220853510
   Hit Rate: 41.9%, Miss Rate = 58.1%

Kickouts = 62038198, Dirty-kickouts = 53365134, Transfers = 128327211
    Flush Kickouts = 1574458
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 = 20387792
```