

CS311 Lab 5: Discrete Event Simulation

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Execution Statistics

Program	No. of cycles	Instructions per cycle (IPC)
descending	15195	0.0182
evenorodd	256	0.0234
fibonacci	3887	0.0200
palindrome	2339	0.0209
prime	1396	0.0207

Analysis of Results

descending

This program has the highest number of cycles (15195) with the lowest IPC (0.0182). This is because of many RAW hazards, nested loops, and frequent branching.

evenorodd

This program took only 256 cycles and had the highest IPC (0.0234). This is because of the straightforward algorithm and at most one branch instruction.

fibonacci, palindrome and prime

These programs had IPCs around 0.02 due to moderate number of RAW hazards and branches.