

ASSIGNMENT 5

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MC23BT029

STATISTICS REPORT

Assembly program	No. of Instructions	No. of Cycles	Instructions per Cycle(Throughput)
fibonacci	78	3581	0.021781625
prime	29	1219	0.023789993
palindrome	49	2062	0.023763336
descending	277	11779	0.023516428
evenorodd	6	259	0.023166023

Table 1: No. of Instructions, No. of Cycles, Throughputs

Comment on the Observation

- descending has the highest instruction count (277) and also the highest cycle count (11779), which shows that larger programs may have more complex control/data flows.
- All the IPC values are quite close and small (0.0217 to 0.0238) implying programs with lower IPC may have more data dependencies, branches, or long-latency operations, causing pipeline stalls or flushes.
- The lower throughput of the fibonacci could be due to recursive instructions or more loops in number.