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# COMPUTER ARCHITECTURE LAB 4

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CS 311

**Author**

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## Observations

Test Case	Static Inst.	Dynamic Inst.	No. of Cycles	Stalls	Wrong B.T.*
evenorodd.asm	10	9	13	6	0
fibonacci.asm	22	117	121	12	16
palindrome.asm	17	91	95	18	7
descending.asm	22	542	546	89	88
prime.asm	17	49	53	8	5

Table 1: Number of Instructions executed and stalls for various programs.

Test Case	IPC	Frequency
evenorodd.asm	0.6923007	1.0 GHz
fibonacci.asm	0.6694215	1.0 GHz
palindrome.asm	0.5473648	1.0 GHz
descending.asm	0.51282054	1.0 GHz
prime.asm	0.6037736	1.0 GHz

Table 2: IPC and Frequency

**Static Instructions** The number of instructions present inside the program.

**Dynamic Instructions** The number of instructions executed by the program to produce the desired result.

**No. of Cycle** The number of clock cycles taken to complete the execution.

**Stalls** The number of stalls that were made during the program execution.

**Wrong Branch Taken** The number of times the program fetched wrong program code.

**IPC** Ratio of Instruction executed per cycle i.e. (Correct Instructions / Cycles).