

Lab 6

Name of Program	Number of Cycles	IPC	Decimal IPC
descending.asm	5723	365/5723	0.06377
evenorodd.asm	319	6/319	0.018808
3.asm	4142	243/4142	0.058667
4.asm	3688	165/3688	0.044739
5.asm	2058	100/2058	0.048590
6.asm	1152	51/1152	0.044270
1.asm	1197	44/1197	0.036758
2.asm	424	8/424	0.018867

Comments:

Cache size is 1kb and the latency is 12 cycles.

Latency of main memory is 40.

Some programs have even less IPC where cache hit rate is less and some have more where cache hit is more.

We can change cache size from the constructor of the processor.

Latency is 12.

Cache SIZE	Even or odd IPC	IPC	Descending IPC	IPC
	Vary L1i(l1d=1kB)	Vary L1d(l1i=1kB)	Vary L1i(l1d=1kB)	Vary L1d(l1i=1kB)
4B	0.0188	0.0188	0.01911	0.05011
8B	0.0188	0.0188	0.01911	0.05212
32B	0.0188	0.0188	0.02376	0.06377

128B	0.0188	0.0188	0.06377	0.06377
1kB	0.0188	0.0188	0.06377	0.06377