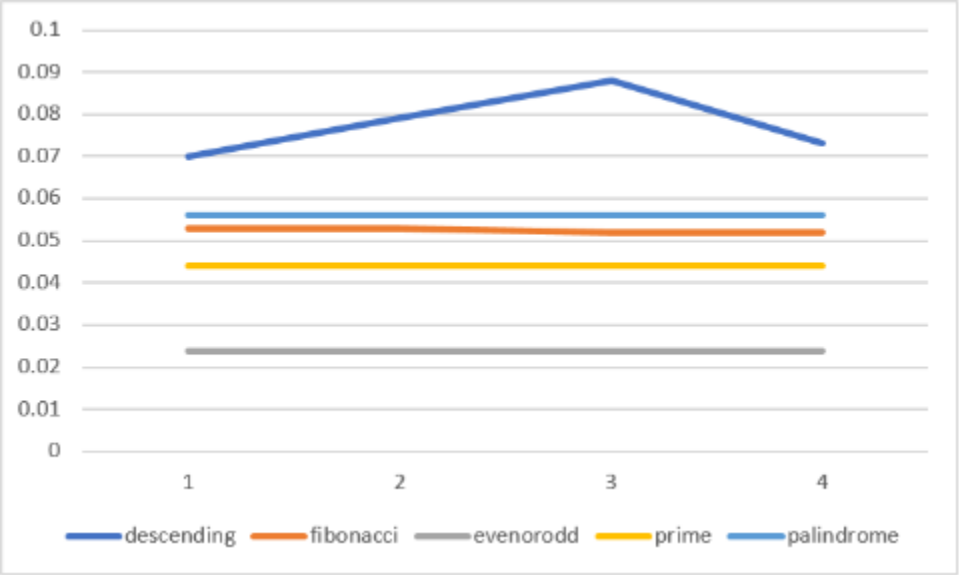
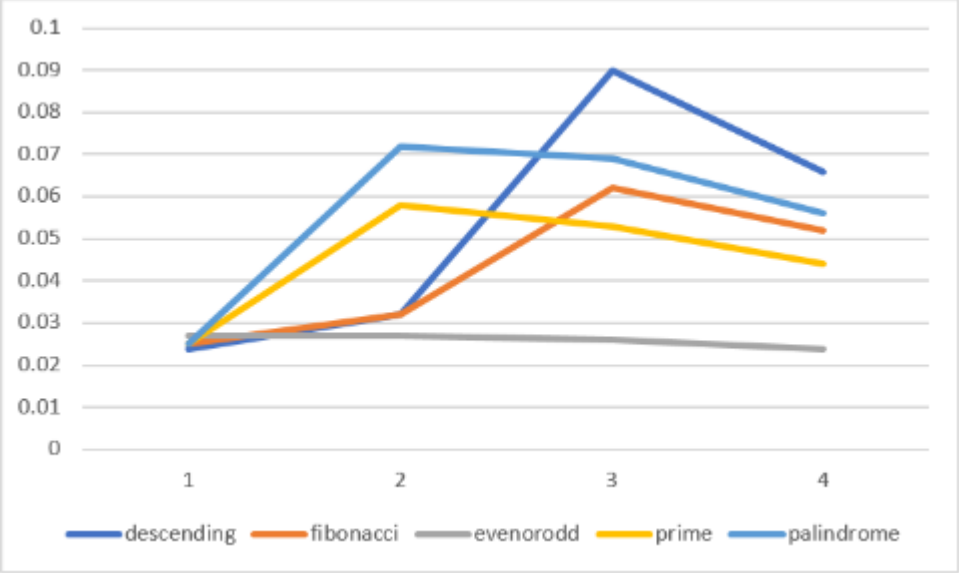
CACHE D	CACHE I	descending	fibonacci	evenorodd	prime	palindrome
8B	1024B	0.07	0.053	0.024	0.044	0.056
32B	1024B	0.079	0.053	0.024	0.044	0.056
128B	1024B	0.088	0.053	0.024	0.044	0.056
1024B	1024B	0.066	0.053	0.024	0.044	0.056



There are no load instructions in a loop prime, palindrome, evenorodd,fibonacci. This results in almost no change in IPC rate irrespective of the latency and size of the data cache .The alternating loops have a size(18 instructions) that a 128B size cache will satisfy and this results in the highest IPC for 128B.

CACHE D	CACHE I	descending	fibonacci	evenorodd	prime	palindrome
8B	1024B	0.024	0.025	0.027	0.025	0.025
32B	1024B	0.032	0.032	0.027	0.058	0.072
128B	1024B	0.09	0.062	0.026	0.053	0.069
1024B	1024B	0.066	0.052	0.024	0.044	0.056



The alternating loops in descending.asm program have a size(18 instructions) that a 128B size cache will satisfy and this results in the highest IPC for 128B.Similar for fibonacci.asm program.

The loop in palindrome.asm program have a size(6 instructions) that a 32B size cache will satisfy and this results in the highest IPC for 32B.Similar for prime.asm program.

There are only 6 instructions in evenorodd.asm program that any size cache will satisfy and this results in almost same IPC.