Part a)

How many PTX instructions make up the PTX implementation of your kernel?

idxToCoords: 15 (SM 3.0)

coordsToIdx: 11 (SM 3.0)

conwayThread: 210 (SM 3.0)

Did the conditional sections of your kernel include branch instructions or only predicated non-branch instructions?

The majority of the conditional sections included only predicated non-branch instructions, though a few of them did include branch instructions.

Part b)

What is the dynamic instruction count?

Protoann1: 303384

Hydra4: 286720

What is the achieved instructions per cycle (IPC) or instruction issue rate?

Protoann1: 1.974721

Hydra4: 2.418415

Breakdown of control / ALU / memory instructions

My Computer:

Control: 9%

ALU: 31%

Memory: 8%

Other: 52%

Protoann1:

Control: 2%

ALU: 66%

Memory: 7%

Other: 25%

Are there any shared memory bank conflicts?

No, because I didn’t use shared memory

What is the effective off-chip memory bandwidth?

Device memory – 19.513 GB/s

Part c)

Performance before – 211.322 us