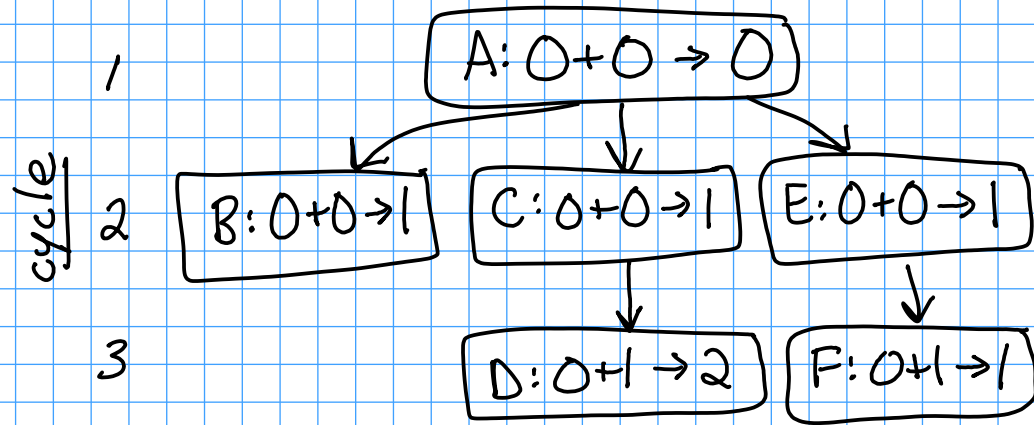


based on random-3sticks-3width-4pregs.insns

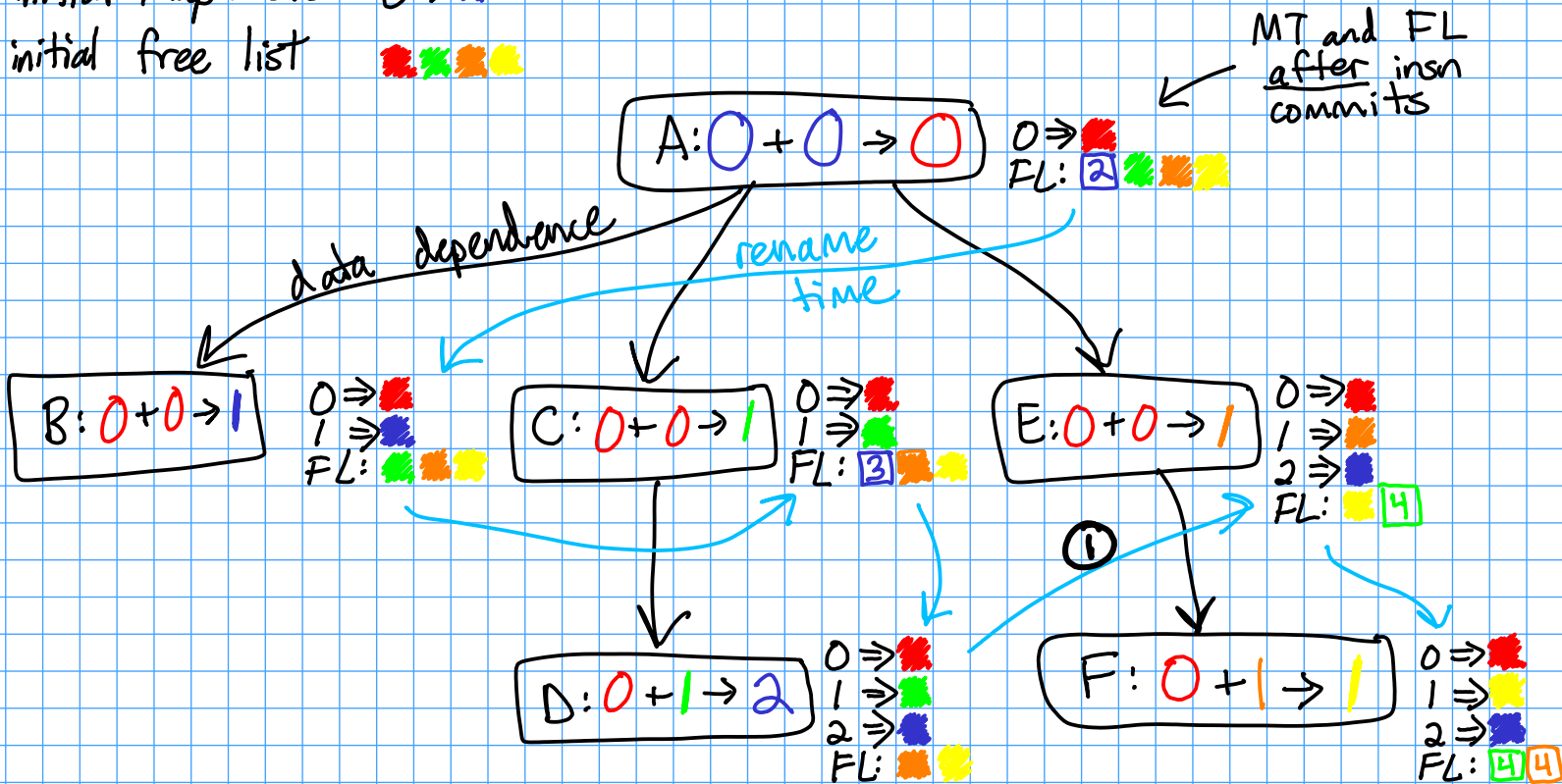
A: $0+0 \rightarrow 0$
 B: $0+0 \rightarrow 1$
 C: $0+0 \rightarrow 1$
 D: $0+1 \rightarrow 2$
 E: $0+0 \rightarrow 1$
 F: $0+1 \rightarrow 1$

schedule/dependence tree



register renaming

initial map table $0 \Rightarrow$ [red, green, orange, yellow]
 initial free list [red, green, orange, yellow]



① since E is after D in the insn stream we have to use its map table for correctness, even though E can execute early

Legend

arch registers are numbers
 phys registers are colors
 [red] is a phys reg free now
 [n] is a phys reg not free until cycle n