

PART A:

GCC

SuperScalar Width $\rightarrow 1$ && No Forwarding && Perfect Prediction

LAB2_NUM_INST	:	10000000
LAB2_NUM_CYCLES	:	11412411
LAB2_CPI	:	1.141
LAB2_branch_mispred	:	0
LAB2_num_branches	:	964441

Superscalar Width $\rightarrow 2$

LAB2_NUM_INST	:	10000000
LAB2_NUM_CYCLES	:	6720461
LAB2_CPI	:	0.672
LAB2_branch_mispred	:	0
LAB2_num_branches	:	964441

Superscalar Width $\rightarrow 2$ && Forwarding

LAB2_NUM_INST	:	10000000
LAB2_NUM_CYCLES	:	5206917
LAB2_CPI	:	0.521
LAB2_branch_mispred	:	0
LAB2_num_branches	:	964441

Part B (With Branch Prediction)

Always Taken

LAB2_NUM_INST	:	10000000
LAB2_NUM_CYCLES	:	6124593
LAB2_CPI	:	0.612
LAB2_branch_mispred	:	265253
LAB2_num_branches	:	964441

GShare

LAB2_NUM_INST	:	10000000
LAB2_NUM_CYCLES	:	5251368
LAB2_CPI	:	0.525
LAB2_branch_mispred	:	12831
LAB2_num_branches	:	964441