

Jeonghyeon Woo

CptS 260

Instruction miss = 0.02

I penalty = 100

Data miss = 0.05

D penalty = 200

P memory access = 0.3

I cache =  $0.02 * 100 = 2$

D cache =  $0.05 * 200 * 0.3 = 3$

Base cpi = 2

Actual CPU =  $2 + 2 + 3 = 7$

Ration of Improvement =  $7/2$

Ideal CPU is  $7/2$  times faster