ECEN 651 Exam 1 Zhenlei Song 1. Computer A: average running time: 1x 30% + 4 x 18% + 3 x 20% + 2 x 32% = 2.26 cycles for computer B plan 1: 1x 30% + 4x 18% + 3x 20% + 1x 32% = 1.94 cycles plan 2: 1×30% + 2×18% + 3×20% + 2×32% = 2.2 cycles 1.9 cycles plan 2 will be better in percentage 32% is more common but for same 50% raise in performance, hads can improve 2 cycles. Still phan 2 has better result.

2.

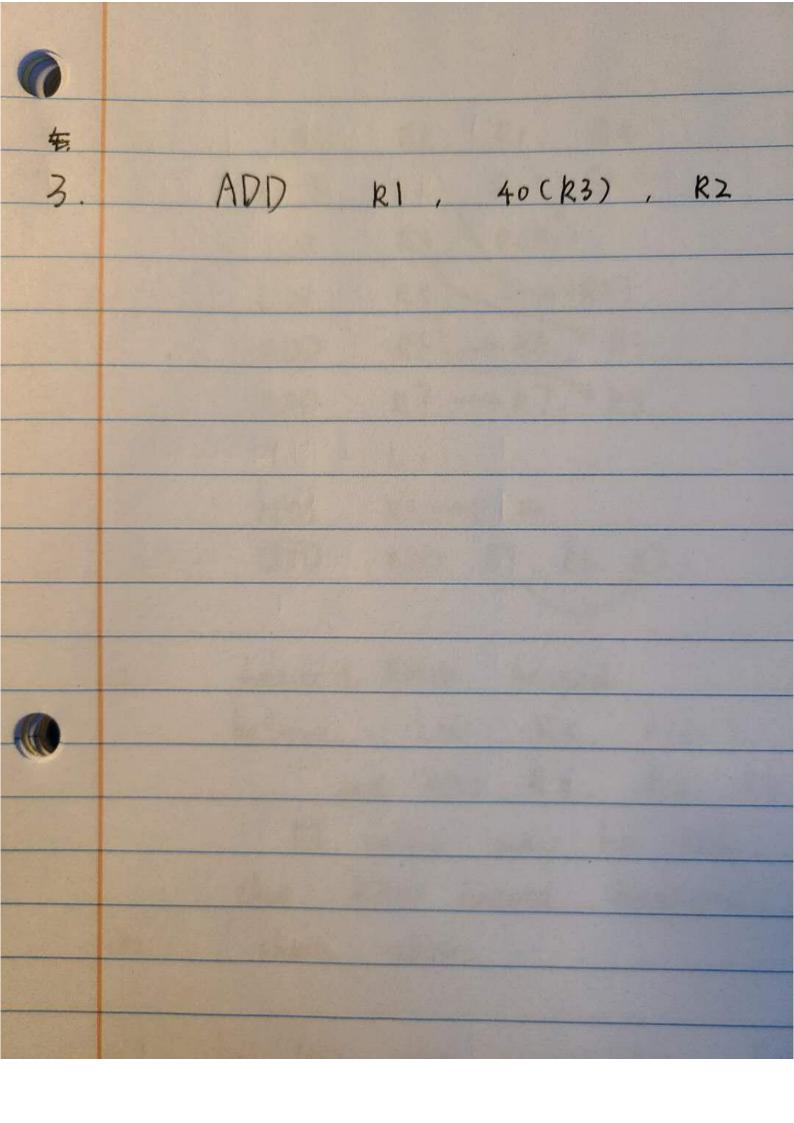
(a) IBM3090

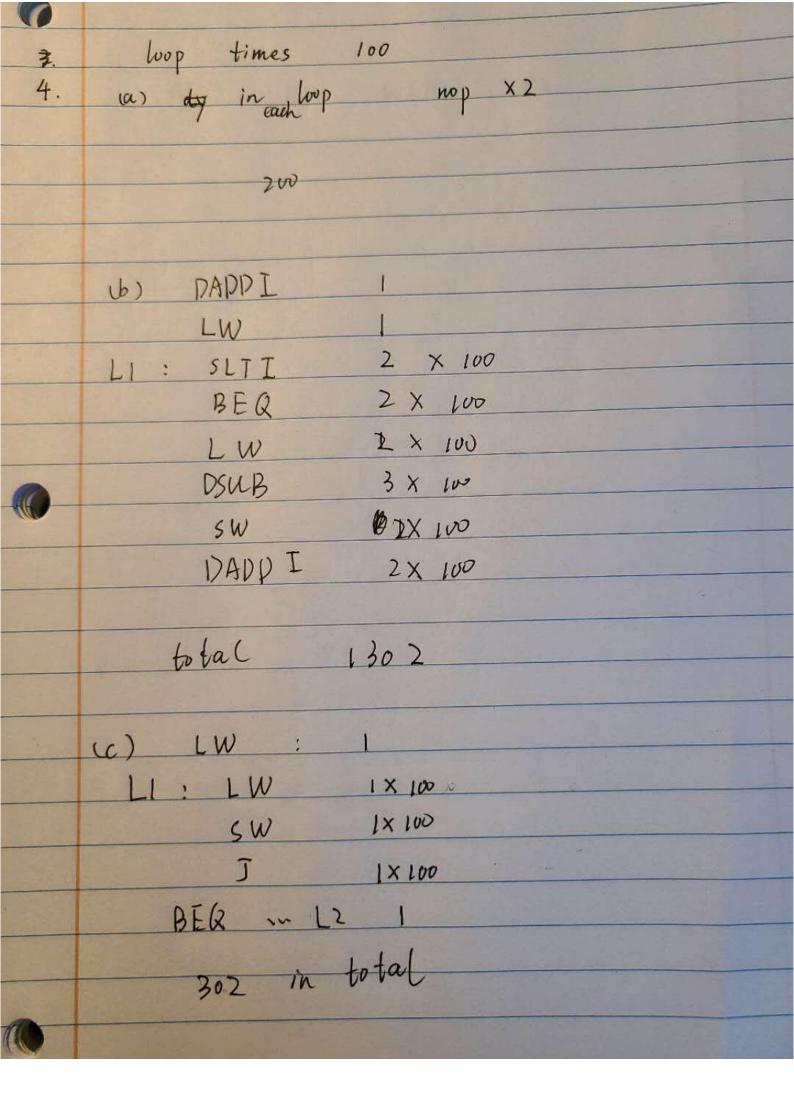
$$\frac{3.77 + 13.4 + 575}{3} = 24.72 \, 6$$
 $\frac{5.3 + 22.6 + 110}{3} = 45.975$
 $\frac{7}{18m3090} = 1.86$
 $\frac{1.86}{(1 - 0.8) + \frac{0.8}{0.7}} = \frac{5}{3}$

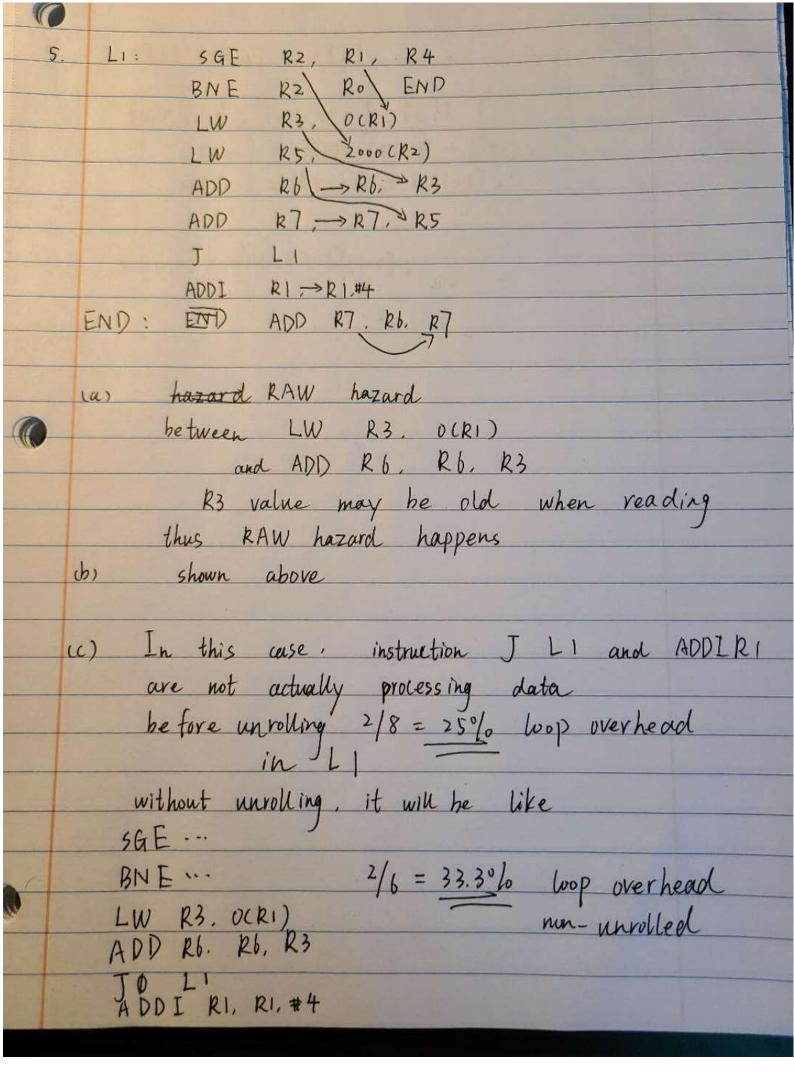
(b) Speedoverall = $\frac{1}{(1 - 0.8) + \frac{0.8}{0.7}} = \frac{5}{3}$

(c) Arth average : 0.15 × 5.3 + 0.77 × 22.6 + 0.08 × 170 = 26.997 5

(d) Geometric mean = $\frac{3}{15.3 \times 22.6 \times 110}$







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b. A [I] = B [I] + C [I];
      for (i= 2; i <= 99; i= it1)
         (ci+1] = Beit (ci+1] + Dci];
        Aci+1] = Bci+1] + (ci+1];
     ([101] = ([101] + D[100];
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