CS M151B   HW 6   Junhong Wang   (504941113)

without - unroll	

cycle	1st issue slot (ALU or Branch)	2nd issue Slot (LW or SW)
1	addi $s0, $s0, 4	lw $t0, 0($s0)
2		
3		lw $t1, 0($t0)
4	bne $s0, $s2, Loop	
5	add $t1, $s1, $t1	
6		sw $t1, 0($t0)

Total # of cycles for 200 iterations: $200 \times 6 + 4 = \boxed{1204}$

Cycle	1st issue slot (ALU or Branch)	2nd issue slot (Lw or Sw)
1		lw $t0, 0($s0)
2		lw $t2, 4($s0)
3		lw $t1, 0($t0)
4	addi $s0, $s0, 8	lw $t3, 0($t2)
5	add $t1, $s1, $t1	
6	bne $s0, $s2, Loop	sw $t1, 0($t0)
7	add $t3, $s1, $t3	
8		sw $t3, 0($t2)

Total # of cycles for 200 iterations: $200 \times \frac{8}{2} + 4 = \boxed{804}$