

Pipelined Cycle Diagram

Instruction	Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
mrmovl 8(%ebp), %esi	0x0	F	D	E	M	W																	
mrmovl 12(%ebp), %eax	0x6		F	D	E	M	W																
irmovl \$-16, %ecx	0xc			F	D	E	M	W W_valE = -16															
irmovl \$0, %edx	0x12				F	D	E	M	W														
irmovl \$16, %ebx	0x18					F	D	E e_valE = 16	M	W													
addl %ebx, %ecx	0x1e					F	D val_A = e_valE = 16 valB = W_valE = -16	E e_valE = 0	M	W													
addl %eax, %ecx	0x20						F	D valB = e_valE = 0	E e_valE = &[0]	M	W												
subl %edx, (%ecx)	0x22							F	D valB = e_valE = &[0]	E m_valM = &[0] M_valA = 0	M	W											
bubble											E	M	W W_valE = &[0]										
									F		D	D valA = M_valA = 0 valB = m_valM = &[0]	E M valE = W_valE = &[0]	W									
je .add0	0x28									F	F		D	E	M	W							
addl %edx, (%ecx)	0x1a0											F	D										
bubble															E	M	W						
													F										
bubble															D	E	M	W					
addl %edx, (%ecx)	0x2d														F	D	E m_valM = &[0] M_valA = 0	W					
bubble																	E	M	W W_valE = &[0]				
															F	D	D valA = M_valA = 0 valB = m_valM = &[0]	E M valE = W_valE = &[0]	W				
subl %eax, %ecx	0x33															F	F		D	E	M M_valE = 0	W	
irmovl \$12, %ebx	0x35																	F	D	E e_valE = 12	M	W	
subl %ebx, %ecx	0x3b																		F	D valA = e_valE = 12 valB = M_valE = 0	E	M	
jne .check0	0x3d																			F		D	E
irmovl \$16, %ebx	0x18																					F	D
addl %ebx, %ecx	0x1e																						F