Cycle	Instruction Retired	Reason
1	NOP	No instruction has retired yet
2	NOP	No instruction has retired yet
3	NOP	No instruction has retired yet
4	NOP	No instruction has retired yet
5	1) lbi r0, 0	First instruction in test
6	2) lbi r5, 43	It has no RAW dependencies and doesn't stall
7	3) lbi r6, 43	It has no RAW dependencies and doesn't stall
8	4) lbi r7, 43	It has no RAW dependencies and doesn't stall
9	5) ld r1, r0, 0	Instruction 1 (lbi r0, 0) has already completed the write back stage and has already written to R0 when this ld instruction enters decode, so there are no stalls introduced due to RAW dependencies.
10	NOP	Instruction 6 has a RAW dependency on r1 that was written to in Instruction 5, so we stall until Instr. 5 is in write back and Instr. 6 is in decode.
11	NOP	Instruction 6 has a RAW dependency on r1 that was written to in Instruction 5, so we stall until Instr. 5 is in write back.
12	6) st r5, r1, 0	After 2 stalls, Instruction 6 gets to write back.
13	7) ld r1, r0, 2	Instruction 1 (lbi r0, 0) has already completed the write to R0 long ago, so there are no stalls introduced due to RAW dependencies.
14	NOP	Instruction 8 has a RAW dependency on r1 that was written to in Instruction 7, so we stall until Instr. 7 is in write back.

15	NOP	Instruction 8 has a RAW dependency on r1 that was written to in Instruction 7, so we stall until Instr. 7 is in write back.
16	8) st r6, r1, 1	After 2 stalls, Instruction 8 gets to writeback.
17	9) ld r1, r0, 4	Instruction 9 has no RAW dependencies, so we don’t stall.
18	NOP	Instruction 10 has a RAW dependency on r1 that was written to in Instruction 9, so we stall until Instr. 9 is in write back and Instr. 10 is in decode.
19	NOP	Instruction 10 has a RAW dependency on r1 that was written to in Instruction 9, so we stall until Instr. 9 is in write back and Instr. 10 is in decode.
20	10) st r7, r1, 1	After 2 stalls, Instruction 10 reaches write back.
21	HALT	HALT evidently doesn’t have dependencies, so it follows immediately after Instruction 10, and the program terminates!