

Write a microcode fragment that computes the equation $R1 = 5(R1 - 2R2) + 3R3$. Use only R1, R2, and R3. Registers can be modified after their results are no longer required.

<i>cycle</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>rwe</i>	<i>im en</i>	<i>im va</i>	<i>au en</i>	<i>-a/s</i>	<i>lu en</i>	<i>lf</i>	<i>su en</i>	<i>st</i>	<i>ld en</i>	<i>st en</i>	<i>r/-w</i>	<i>msel</i>	<i>description</i>
1	2	2	2	1	0	X	1	0	0	X	0	X	0	0	X	0	R2 ← R2 + R2
2	1	2	1	1	0	X	1	1	0	X	0	X	0	0	X	0	R1 ← R1 - R2
3	1	X	2	1	1	FFFE	0	X	0	X	1	1	0	0	X	0	R2 ← R1 ash -2
4	1	2	1	1	0	X	1	0	0	X	0	X	0	0	X	0	R1 ← R1 + R2
5	3	3	2	1	0	X	1	0	0	X	0	X	0	0	X	0	R2 ← R3 + R3
6	2	3	3	1	0	X	1	0	0	X	0	X	0	0	X	0	R3 ← R2 + R3
7	1	3	1	1	0	X	1	0	0	X	0	X	0	0	X	0	R1 ← R1 + R3