

PC	Assembly Code	Description	Machine Code	Display
0	load \$r1, 0(\$r0)	$r1 = M[0]$	01 00 01 00	00
1	load \$r2, 1(\$r0)	$r2 = M[1]$	01 00 10 01	01
2	add \$r1, \$r1, \$r2	$r1 = r1 + r2$	00 01 10 01	01
3	store \$r1, 0(\$r0)	$M[0] = r1$	10 00 01 00	XX
4	load \$r1, 0(\$r0)	$r1 = M[0]$	01 00 01 00	01
5	load \$r2, 1(\$r0)	$r2 = M[1]$	01 00 10 01	01
6	add \$r1, \$r1, \$r2	$r1 = r1 + r2$	00 01 10 01	02
7	store \$r1, 0(\$r0)	$M[0] = r1$	10 00 01 00	XX
8	load \$r1, 0(\$r0)	$r1 = M[0]$	01 00 01 00	02
9	load \$r2, 1(\$r0)	$r2 = M[1]$	01 00 10 01	01
10	add \$r1, \$r1, \$r2	$r1 = r1 + r2$	00 01 10 01	03
11	store \$r1, 0(\$r0)	$M[0] = r1$	10 00 01 00	XX
12	load \$r1, 0(\$r0)	$r1 = M[0]$	01 00 01 00	03
13	load \$r2, 1(\$r0)	$r2 = M[1]$	01 00 10 01	01
14	add \$r1, \$r1, \$r2	$r1 = r1 + r2$	00 01 10 01	04
15	store \$r1, 0(\$r0)	$M[0] = r1$	10 00 01 00	XX
16	load \$r1, 0(\$r0)	$r1 = M[0]$	01 00 01 00	04
17	load \$r2, 1(\$r0)	$r2 = M[1]$	01 00 10 01	01
18	add \$r1, \$r1, \$r2	$r1 = r1 + r2$	00 01 10 01	05
19	store \$r1, 0(\$r0)	$M[0] = r1$	10 00 01 00	XX
20	jump -1	$PC = (PC+1) - 1$	11 00 00 11	XX