

20. Desenvolver um programa monolítico, utilizando instruções rotuladas, sobre a máquina 2_REG, que implemente a função $B = A * 3 + 5$. Apresentar a computação e a função computada para as entradas 4 e 5.

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R01: Se a_zero então vá_para R06 senão vá_para R02;  
R02: Faça subtrair_a vá_para R03;  
R03: Faça adicionar_b vá_para R04;  
R04: Faça adicionar_b vá_para R05;  
R05: Faça adicionar_b vá_para R01;  
R06: Faça adicionar_b vá_para R07;  
R07: Faça adicionar_b vá_para R08;  
R08: Faça adicionar_b vá_para R09;  
R09: Faça adicionar_b vá_para R10;  
R10: Faça adicionar_b vá_para Rx;
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(R01, (4, 0))	(R01, (5, 0))
(R02, (4, 0))	(R02, (5, 0))
(R03, (3, 0))	(R03, (4, 0))
(R04, (3, 1))	(R04, (4, 1))
(R05, (3, 2))	(R05, (4, 2))
(R01, (3, 3))	(R01, (4, 3))
(R02, (3, 3))	(R02, (4, 3))
(R03, (2, 3))	(R03, (3, 3))
(R04, (2, 4))	(R04, (3, 4))
(R05, (2, 5))	(R05, (3, 5))
(R01, (2, 6))	(R01, (3, 6))
(R02, (2, 6))	(R02, (3, 6))
(R03, (1, 6))	(R03, (2, 6))
(R04, (1, 7))	(R04, (2, 7))
(R05, (1, 8))	(R05, (2, 8))
(R01, (1, 9))	(R01, (2, 9))
(R02, (1, 9))	(R02, (2, 9))
(R03, (0, 9))	(R03, (1, 9))
(R04, (0, 10))	(R04, (1, 10))
(R05, (0, 11))	(R05, (1, 11))
(R01, (0, 12))	(R01, (1, 12))
(R06, (0, 12))	(R02, (1, 12))
(R07, (0, 13))	(R03, (0, 12))
(R08, (0, 14))	(R04, (0, 13))
(R09, (0, 15))	(R05, (0, 14))
(R10, (0, 16))	(R01, (0, 15))
(Rx, (0, 17))	(R06, (0, 15))
	(R07, (0, 16))
	(R08, (0, 17))
	(R09, (0, 18))
	(R10, (0, 19))
	(Rx, (0, 20))

<TCO_20, 2_REG> : 4 -> 17

<TCO_20, 2_REG> : 5 -> 20