

Jiaying Gong 1009388066

Part B:

	Step	Operation	In R_1	In R_2	R_{mul}	R_{en}	R_{mul}	R_{en}	InSel	ASel	BSel	Done	NextStep
000	0	$R_1 = X$	X	?	0	1	X	0	00	11	00	0	1
001	1	$R_1 = X \times X$	X^2	?	1	1	X	0	00	11	11	0	2
010	2	$R_1 = A \times R_1$	AX^2	?	1	1	X	0	01	11	01	0	3
011	3.	$R_2 = X$	AX^2	X	X	0	0	1	00	11	00	0	4
100	4.	$R_2 = B \times X$	AX^2	BX	X	0	1	1	10	11	10	0	5
101	5.	$R_1 = R_1 + R_2$	$AX^2 + BX$	BX	0	1	X	0	XX	01	10	0	6
110	6.	$R_1 = C + R_1$	$AX^2 + BX + C$	BX	0	1	X	0	11	11	01	0	7
111	7.	Hold	$AX^2 + BX + C$	BX	X	0	X	0	XX	XX	XX	1	7

InSel: $X = 00$

$A = 01$

$B = 10$

$C = 11$