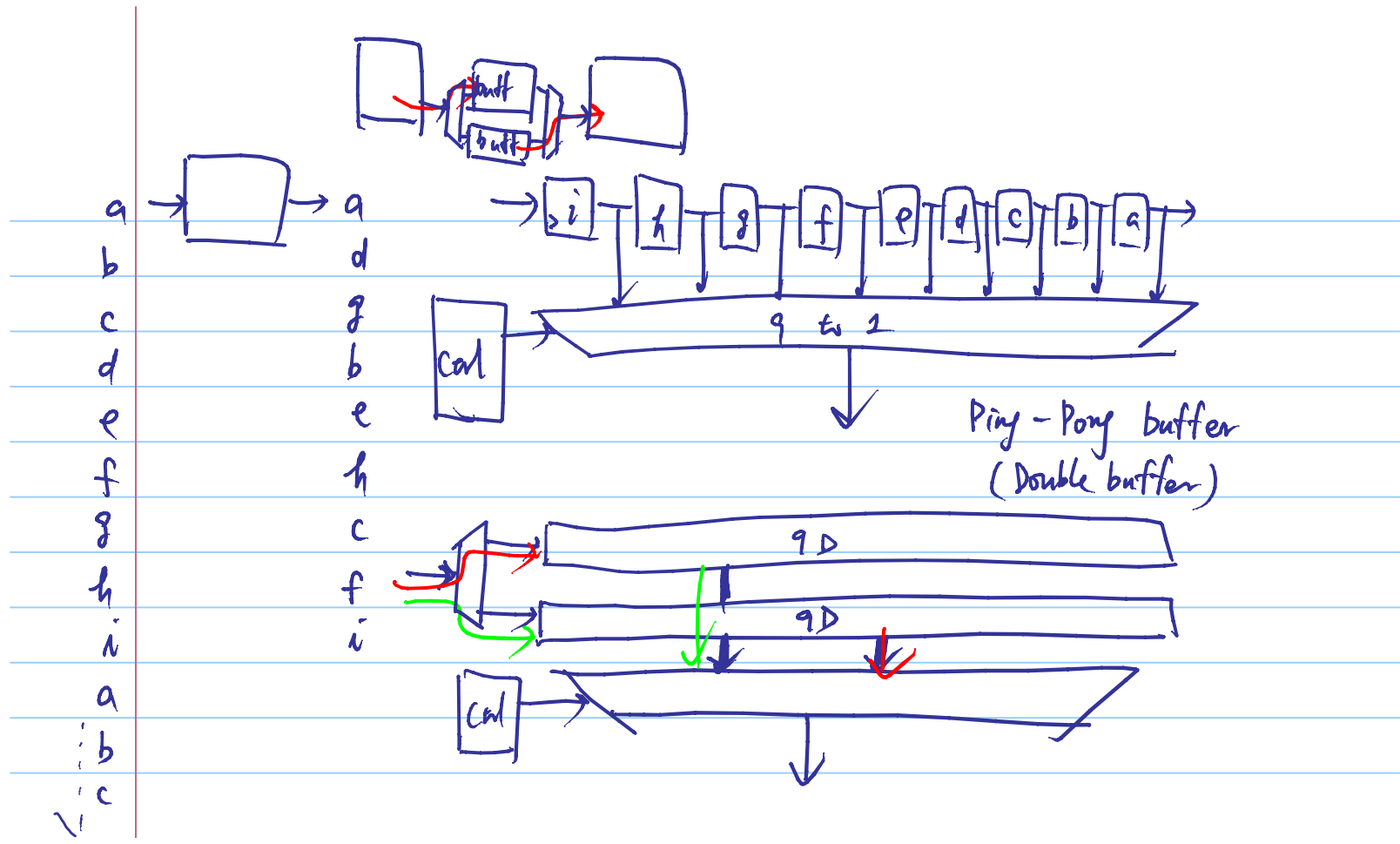
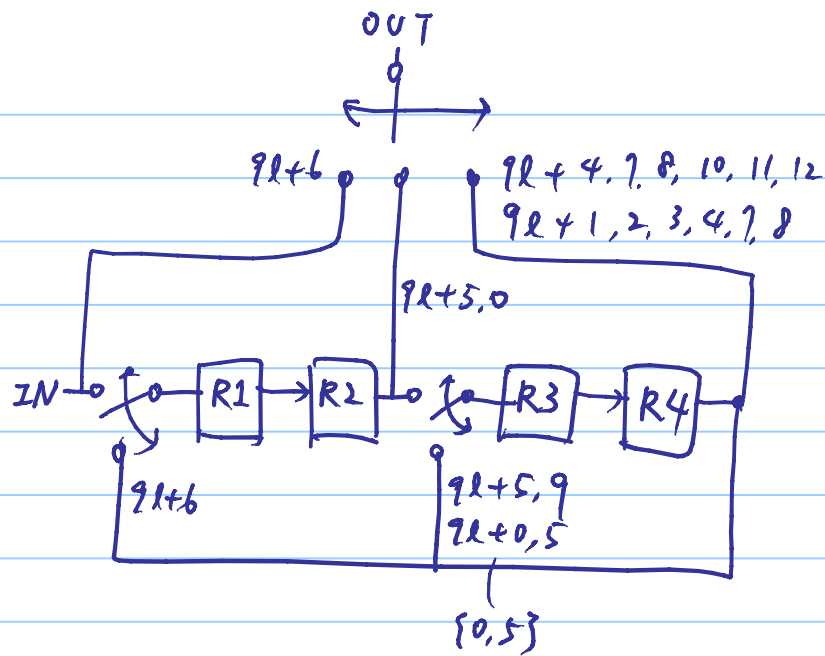


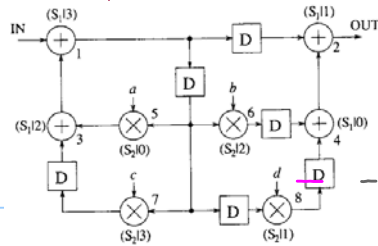
/10/18

- $D_F(1 \rightarrow 2) = 4(1) - 1 + 1 - 3 = 1$
- $D_F(1 \rightarrow 5) = 4(1) - 1 + 0 - 3 = 0$
- $D_F(1 \rightarrow 6) = 4(1) - 1 + 2 - 3 = 2$
- $D_F(1 \rightarrow 7) = 4(1) - 1 + 3 - 3 = 3$
- $D_F(1 \rightarrow 8) = 4(2) - 1 + 1 - 3 = 5$
- $D_F(3 \rightarrow 1) = 4(0) - 1 + 3 - 2 = 0$
- $D_F(4 \rightarrow 2) = 4(0) - 1 + 1 - 0 = 0$
- $D_F(5 \rightarrow 3) = 4(0) - 2 + 2 - 0 = 0$
- $D_F(6 \rightarrow 4) = 4(1) - 2 + 0 - 2 = 0$
- $D_F(7 \rightarrow 3) = 4(1) - 2 + 2 - 3 = 1$
- $D_F(8 \rightarrow 4) = 4(1) - 2 + 0 - 1 = 1$

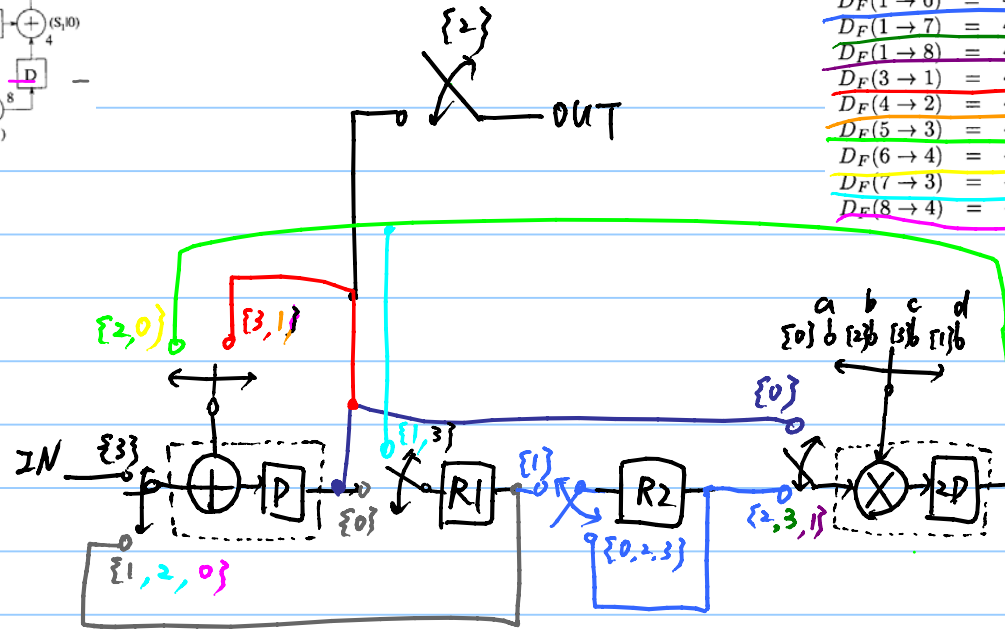


cycle	input	R1	R2	R3	R4	output
0	a					
1	b	a				
2	c	b	a			
3	d	c	b	a		
4	e	d	c	b	a	a
5	f	e	d	c	b	d
6	g	f	e	b	c	g
7	h	c	f	e	b	b
8	i	h	c	f	c	e
9		i	h	c	f	h
10			i	f	c	c
11				i	f	f
12					i	i





cycle	input	R1	R2	output
0				
1				
2				
3	$n_8$			
4	$n_1$	$n_8$		$n_8$
5	$n_7$	$n_1$		
6		$n_7$	$n_1$	$n_7$
7			$n_7$	
8				
9				$n_1$



$$D_F(1 \rightarrow 2) = 4(1) - 1 + 1 - 3 = 1$$

$$D_F(1 \rightarrow 5) = 4(1) - 1 + 0 - 3 = 0$$

$$D_F(1 \rightarrow 6) = 4(1) - 1 + 2 - 3 = 2$$

$$D_F(1 \rightarrow 7) = 4(1) - 1 + 3 - 3 = 3$$

$$D_F(1 \rightarrow 8) = 4(2) - 1 + 1 - 3 = 5$$

$$D_F(3 \rightarrow 1) = 4(0) - 1 + 3 - 2 = 0$$

$$D_F(4 \rightarrow 2) = 4(0) - 1 + 1 - 0 = 0$$

$$D_F(5 \rightarrow 3) = 4(0) - 2 + 2 - 0 = 0$$

$$D_F(6 \rightarrow 4) = 4(1) - 2 + 0 - 2 = 0$$

$$D_F(7 \rightarrow 3) = 4(1) - 2 + 2 - 3 = 1$$

$$D_F(8 \rightarrow 4) = 4(1) - 2 + 0 - 1 = 1$$