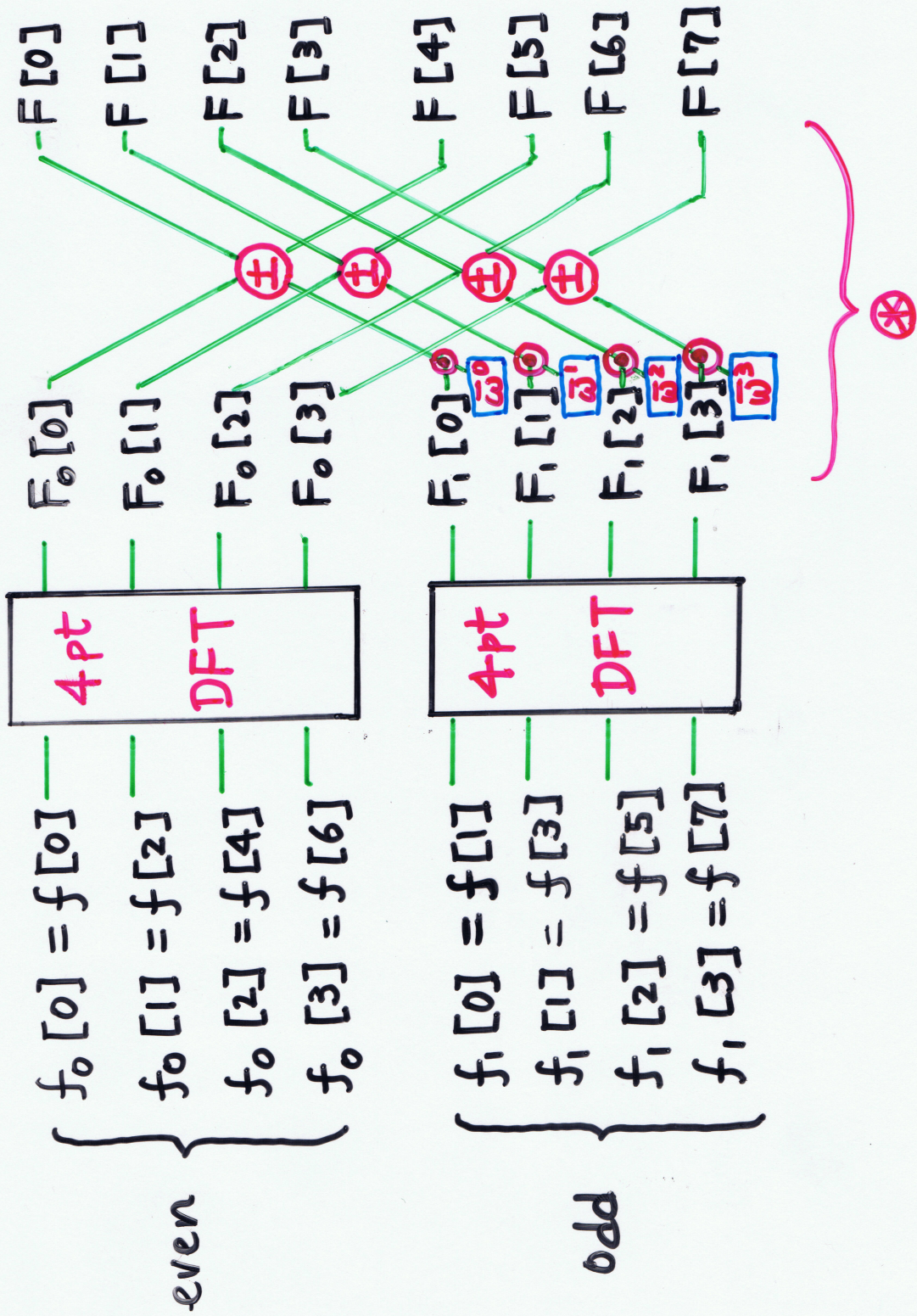
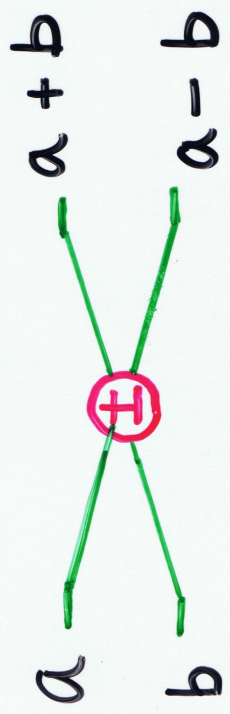


1 level FFT (N=8)

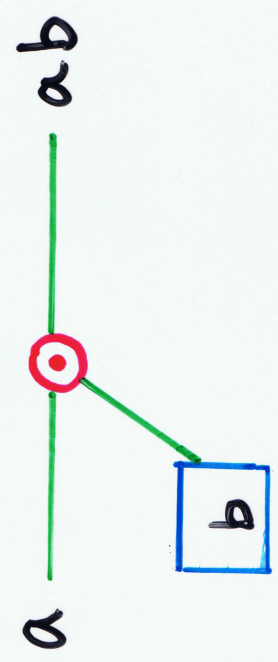
Butterfly OP.



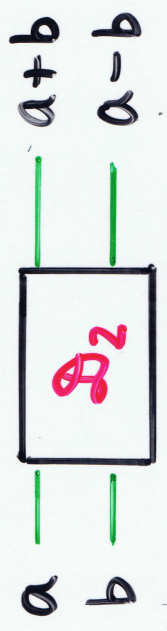
Butterfly Op.



Multiplier

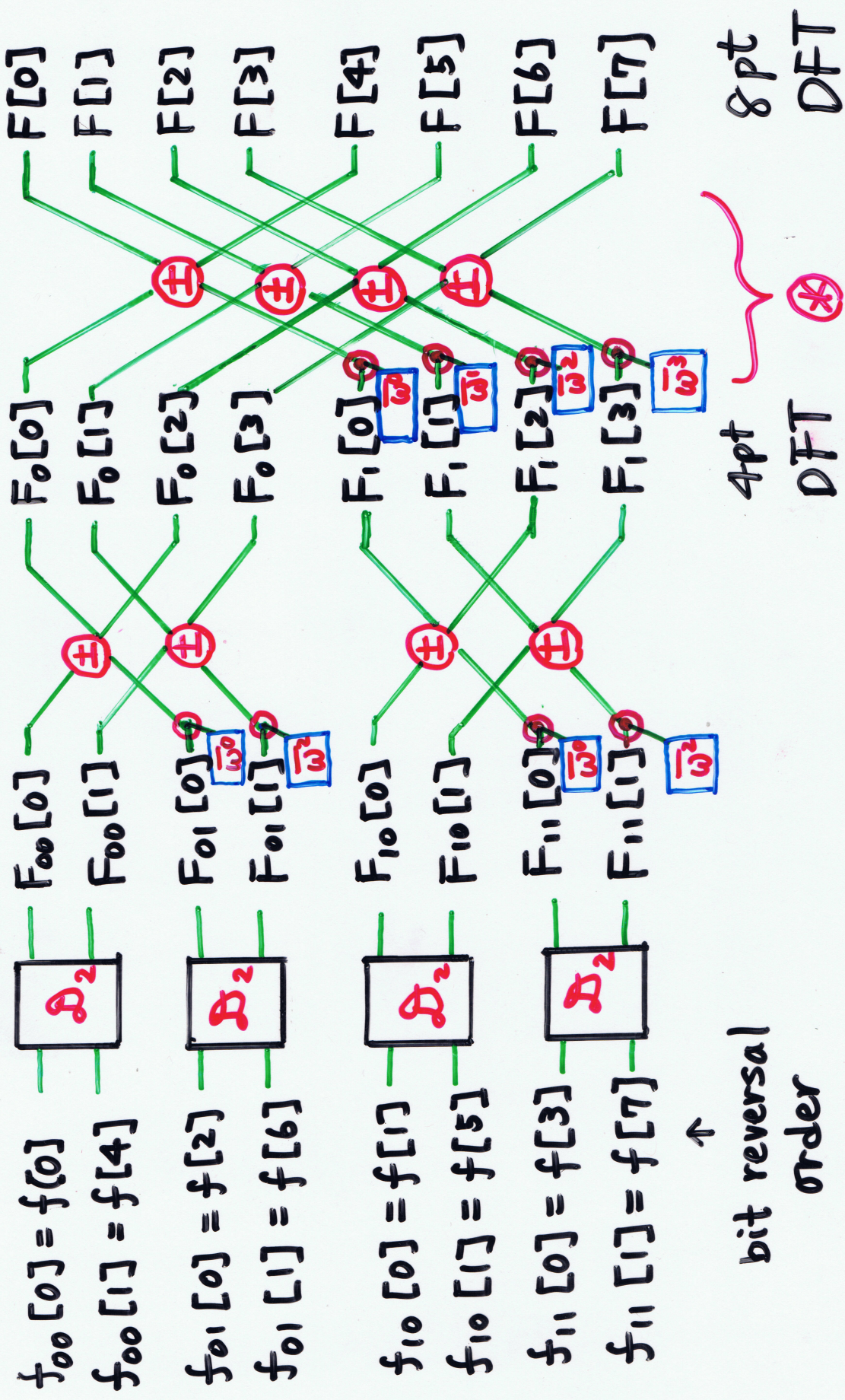


D_2



2pt DFT.

Full level FFT (N=8)



$$\omega_4^1 = \omega_8^2$$

Bit Reversal Operation

- If $\underline{l} = b_{m-1} b_{m-2} \dots b_0$ (binary expansion of l), then $\bar{l} = b_0 b_1 \dots b_{m-1}$ is called the bit-reversed number of l
- If $f[l] = f[b_{m-1} \dots b_0]$, then \mathcal{D}_2 op. at the bottom level is done between

$f_{b_0 b_1 \dots b_{m-2}} [0]$	$f_{b_0 b_1 \dots b_{m-2}} [1]$	$b_2 b_1 b_0$	$b_0 b_1 b_2$	\bar{l}	\mathcal{D}_2 pair
0	000	000	000	0	$f_{00} [0]$
1	001	100	100	4	$f_{10} [0]$
2	010	010	010	2	$f_{01} [0]$
3	011	110	110	6	$f_{11} [0]$
4	100	001	001	1	$f_{00} [1]$
5	101	101	101	5	$f_{10} [1]$
6	110	011	011	3	$f_{01} [1]$
7	111	111	111	7	$f_{11} [1]$