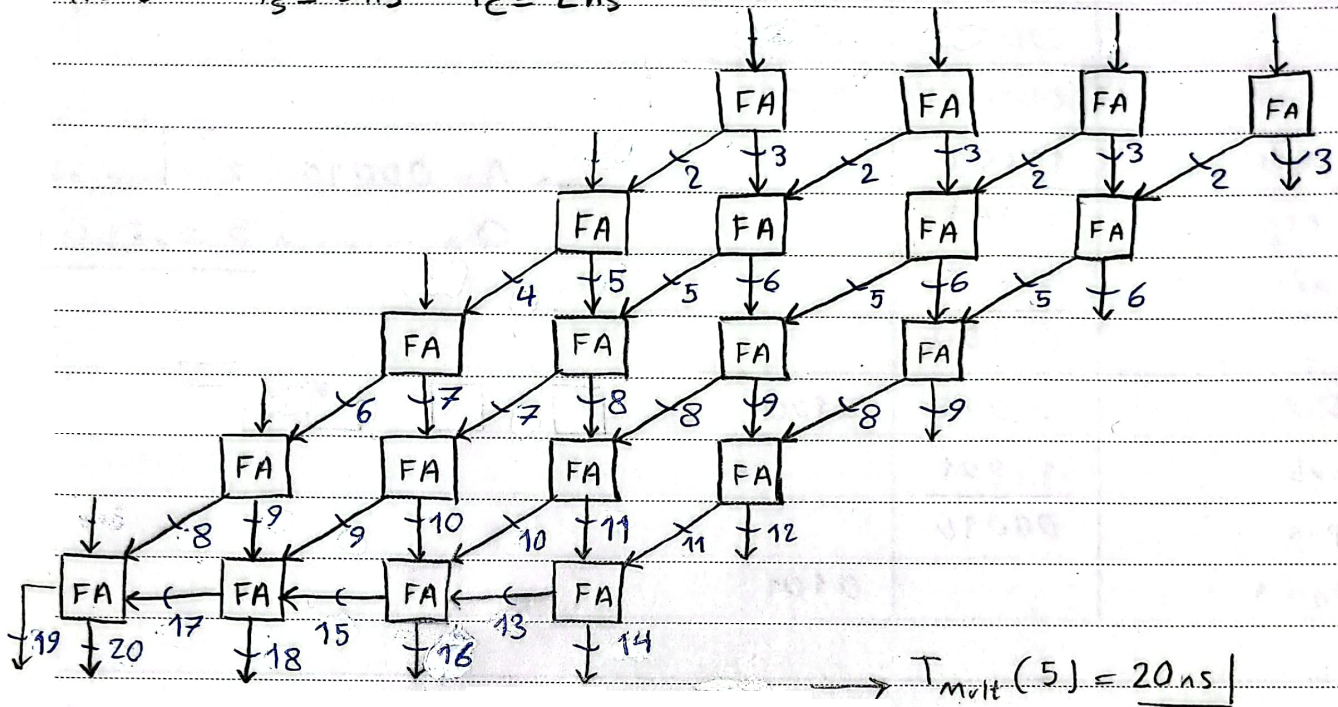


$k=5$ $T_s=3\text{ns}$ $T_c=2\text{ns}$



Dividend = +37 : 0100101 \rightarrow 8 بیت : 00100101

Divisor = +7 : 0111 \rightarrow 4 بیت : 1001

1) Divisor $\neq 0$ ✓

2) Divisor > Dividend \rightarrow \checkmark \rightarrow overflow

restoring روش

	A	Q
	00010	0101
① shl	00100	1010
sub	11001	
neg	11101	
add	00111	
	00100	
② shl	01001	0100
sub	11001	
pos	00010	
$Q_0 = 1$		0101

ID=0

Year. Month. Date. ^{٢٠٢٠}

	A	Q
	00010	0101
③ shl	00100	1010
sub	11001	
neg	11101	
add	00111	
	00100	
④ shl	01001	0100
sub	11001	
pos	00010	
Q ₀ = 1		0101

→ A = 00010 = 2 باقی مانده
Q = 0101 = 5 خارج قسمت

Multiplicand = -19 + 19 = 010011 → -19 = 101101 ^۳

Multiplier = -21 + 21 = 010101 → -21 = 101011

Booth Coding: $\begin{matrix} 1010110 \\ \underline{111101} \end{matrix}$ Multiplicand ۲ بکس: 010011

$\begin{array}{r}
101101 \\
\underline{111101} \\
000000010011 \\
000000000000 \\
1111101101 \\
000010011 \\
11101101 \\
0010011 \\
\hline
000110001111 \rightarrow 399 = (-21) \times (-19) \checkmark
\end{array}$

Number = -29.25 $N = (-1)^S 1.n_n \dots n \times 2^E$ ^۴

s=1 29.25 = 11101.01 = 1.110101 × 2⁴

4 + 127 = 131: 10000011 → E $\xrightarrow{\quad} M$

→ F = $\begin{array}{|c|c|c|} \hline 1 & 10000011 & 1101010000000000000000 \\ \hline S & E & M \\ \hline \end{array}$