Division of Unsigned Integer - Restoring Division Mthd

Eg: $11 \div 3 \rightarrow$ Dividend $(Q) = 11 = (1011)_2$

Divisor $(M) = (00011)_2 \rightarrow (n+1 = 5$ bits$)$

$-M = 2'comp(M) = (11101)_2$

n	$(n+1)$ M	$(n+1)$ A	(n) Q	Act^n/Operat^n
4	00011	00000	1011	Init^n
		00001	011_	S·L A,Q
		11110	011_	A-M i.e A+(-M)
3		00001	0110	Q[0]←0 Restore A, n-1
		00010	110_	SL A,Q
		11111	110_	A+(-M)
2		00010	1100	Q[0]←0, Restore A, n-1
		00101	100_	S·L AQ
		00010	100_	A+(-M)
1		00010	1001	Q[0]←1, n-1
		00101	001_	S·L AQ
		00010	001_	A+(-M)
0		00010	0011	Q[0]←1 n=n-1

Reminder

$(2)_{10}$

Quotient

$(3)_{10}$