Perform modified Booth on the following numbers:

$-9 \times -13 = 117$

$M = -9 \Rightarrow 110111$

$Q = -13 \Rightarrow 110011$

$9 \rightarrow 001001$

$-9 \rightarrow 110111$

$13 \rightarrow 001101$

$-13 \rightarrow 110011$

Initial setting:

Accumulator Register A = 000000

Register Q (Multiplier) = 110011 → (-13)

Register M (Multiplicand) = 110111 → (-9)

	A	Q	Q_{-1}
I	000000	110011	0
A = A-M	001001		
	001001	110011	0
ASR	000100	111001	1
ASR	000010	011100	1
II	110111		
A = A+M	111001	011100	1
ASR	111100	101110	0
ASR	111110	010111	0
III	001001		
A = A-M	000111	010111	0
ASR	000011	101011	1
ASR	000001	110101	1

Drop Q_{-1} (previous LSB)

Product = 000001 110101 = 117