Booth's Example: 11 X (-13)

11 - Multiplicand (M), (-13) - multiplier (Q)

(01011)

13 - 001101 (-13) = 1's - 10010

+1

2's - 110011

11 - 001011 (-11) = 1's = 10100

+1

110101

Tracing Table

ANS: Checking

1 1 1 1 0 1 1 1 0 0 0 1

0 0 0 0 1 0 0 0 1 1 1 0 (1's c)

\+ 1

0 0 0 0 1 0 0 0 1 1 1 1 (2's c)

2^7 2^6 2^5 2^4 2^3 2^2 2^1 2^0

128 + 8 + 4 + 2 + 1

143

Sign bit of answer already indicates it is a Negative number

ANS: −143

Modified Booth's Algorithm