

BOOTH'S ALGORITHM

Example 1: 7*3

```
Command Prompt
C:\Users\Rony\Desktop>python boothtest.py
BOOTH'S ALGORITHM

Enter value of Multiplicand -> M : 7
Enter value of Multiplier -> Q : 3

Signed Values
Multiplicand (M) : 0 1 1 1
Multiplier (Q) : 0 0 1 1
A : 0 0 0 0
Q-1 : 0
-M : 1 0 0 1

      A          Q          Q -1
-----
Step 1    1 1 0 0    1 0 0 1    1
-----
Step 2    1 1 1 0    0 1 0 0    1
-----
Step 3    0 0 1 0    1 0 1 0    0
-----
Step 4    0 0 0 1    0 1 0 1    0
-----
Result : 21

C:\Users\Rony\Desktop>
```

Example 2: -7×3

```
Command Prompt
C:\Users\Rony\Desktop>python boothtest.py
BOOTH'S ALGORITHM

Enter value of Multiplicand -> M : -7
Enter value of Multiplier -> Q : 3

Signed Values
Multiplicand (M) : 1 0 0 1
Multiplier (Q) : 0 0 1 1
A : 0 0 0 0
Q-1 : 0
-M : 0 1 1 1

      A           Q           Q -1
-----
Step 1   0 0 1 1   1 0 0 1       1
-----
Step 2   0 0 0 1   1 1 0 0       1
-----
Step 3   1 1 0 1   0 1 1 0       0
-----
Step 4   1 1 1 0   1 0 1 1       0
-----
Result : - 21

C:\Users\Rony\Desktop>
```

Example 3: -12×-3

```
Command Prompt
C:\Users\Rony\Desktop>python boothtest.py
BOOTH'S ALGORITHM

Enter value of Multiplicand -> M : -12
Enter value of Multiplier -> Q : -3

Signed Values
Multiplicand (M) : 1 0 1 0 0
Multiplier (Q) : 1 1 0 1
A : 0 0 0 0 0
Q-1 : 0
-M : 0 1 1 0 0

-----
Step 1      A      Q      Q-1
-----
Step 1      0 0 1 1 0      0 1 1 0      1
-----
Step 2      1 1 1 0 1      0 0 1 1      0
-----
Step 3      0 0 1 0 0      1 0 0 1      1
-----
Step 4      0 0 0 1 0      0 1 0 0      1
-----
Result : 36

C:\Users\Rony\Desktop>
```