

RESTORING DIVISION ALGORITHM

Example 1: 36/3

```
C:\Users\Rony\Desktop>python demotest.py
DIVISION RESTORING ALGORITHM

Enter value of Dividend -> Q : 36
Enter value of Divisor -> M : 3

Q : 1 0 0 1 0 0
M : 0 0 0 0 0 1 1
A : 0 0 0 0 0 0 0
-M : 1 1 1 1 1 0 1

      |      A      |      Q      |
-----
Step : 1  |  0 0 0 0 0 0 1  |  0 0 1 0 0 0  |
-----
Step : 2  |  0 0 0 0 0 1 0  |  0 1 0 0 0 0  |
-----
Step : 3  |  0 0 0 0 0 0 1  |  1 0 0 0 0 1  |
-----
Step : 4  |  0 0 0 0 0 0 0  |  0 0 0 0 1 1  |
-----
Step : 5  |  0 0 0 0 0 0 0  |  0 0 0 1 1 0  |
-----
Step : 6  |  0 0 0 0 0 0 0  |  0 0 1 1 0 0  |
-----
Quotient: 0 0 1 1 0 0 -> 12
Remainder: 0 0 0 0 0 0 0 -> 0

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

Example 2: 35/4

```
Command Prompt

C:\Users\Rony\Desktop>python demotest.py
DIVISION RESTORING ALGORITHM

Enter value of Dividend -> Q : 35
Enter value of Divisor -> M : 4

Q : 1 0 0 0 1 1
M : 0 0 0 0 1 0 0
A : 0 0 0 0 0 0 0
-M : 1 1 1 1 1 0 0

-----
Step : 1  | 0 0 0 0 0 0 1 | 0 0 0 1 1 0 |
-----
Step : 2  | 0 0 0 0 0 1 0 | 0 0 1 1 0 0 |
-----
Step : 3  | 0 0 0 0 0 0 0 | 0 1 1 0 0 1 |
-----
Step : 4  | 0 0 0 0 0 0 0 | 1 1 0 0 1 0 |
-----
Step : 5  | 0 0 0 0 0 0 1 | 1 0 0 1 0 0 |
-----
Step : 6  | 0 0 0 0 0 1 1 | 0 0 1 0 0 0 |
-----
Quotient: 0 0 1 0 0 0 -> 8
Remainder: 0 0 0 0 0 1 1 -> 3

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