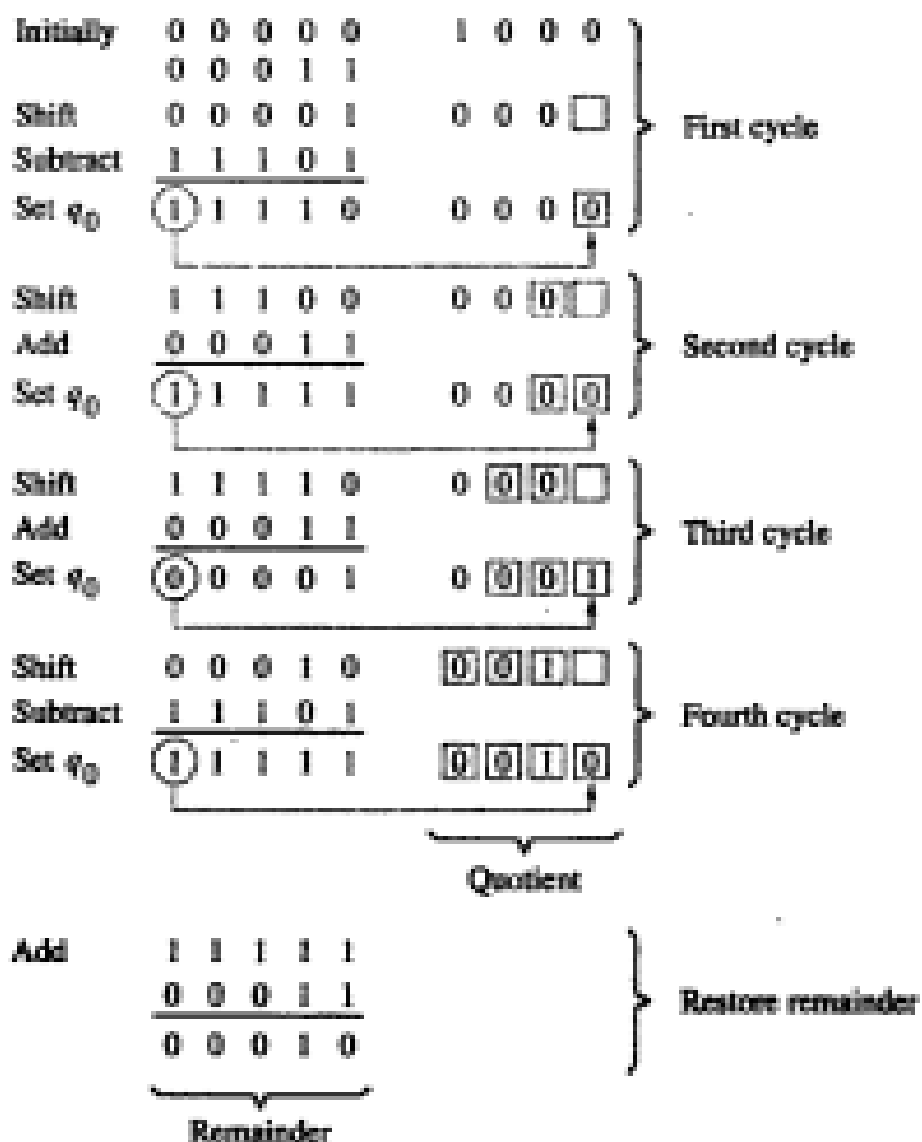


## Non-Restoring Division

**Step 1:** Do the following  $n$  times:

1. If the sign of  $A$  is 0, shift  $A$  and  $Q$  left one bit position and subtract  $M$  from  $A$ ; otherwise, shift  $A$  and  $Q$  left and add  $M$  to  $A$ .
2. Now, if the sign of  $A$  is 0, set  $q_n$  to 1; otherwise, set  $q_n$  to 0.

**Step 2:** If the sign of  $A$  is 1, add  $M$  to  $A$ .



**Figure 6.23** A nonrestoring-division example.