Solved Long Division Problems with Step-By-Step Walkthrough

Steps: (1) Divide   (2) Multiply   (3) Subtract   (4) Bring down the next number   (5) Repeat if needed

Solutions are on page 2

(1)

$$3\overline{)551019}$$

(2)

$$2\overline{)175039}$$

(3)

$$4\overline{)267182}$$

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Also see our Worksheets and Walkthroughs video: "Division - Traditional Long Division Algorithm Method Word Problems"

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(1)

```
            183673 R0
         _____
      3 | 551019
         - 3           ( 1 x 3 )
         -----
           25
         - 24          ( 8 x 3 )
         -----
           11
          - 9          ( 3 x 3 )
          ----
           20
         - 18          ( 6 x 3 )
         -----
           21
         - 21          ( 7 x 3 )
         -----
             09
           - 9         ( 3 x 3 )
           ---
```
Remainder -->   0

Divide, Multiply, Subtract, Bring down, Repeat

Divide 3 into 5 (= 1)
Multiply 1 times 3 (= 3)
Subtract 3 from 5 (= 2)
Bring down the 5

Divide 3 into 25 (= 8)
Multiply 8 times 3 (= 24)
Subtract 24 from 25 (= 1)
Bring down the 1

Divide 3 into 11 (= 3)
Multiply 3 times 3 (= 9)
Subtract 9 from 11 (= 2)
Bring down the 0

Divide 3 into 20 (= 6)
Multiply 6 times 3 (= 18)
Subtract 18 from 20 (= 2)
Bring down the 1

Divide 3 into 21 (= 7)
Multiply 7 times 3 (= 21)
Subtract 21 from 21 (= 0)
Bring down the 9

Divide 3 into 09 (= 3)
Multiply 3 times 3 (= 9)
Subtract 9 from 09 (= 0)
Done. No more numbers to bring down.

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(2)

```
            87519 R1
         _____
      2 | 175039
         - 16          ( 8 x 2 )
         -----
           15
         - 14          ( 7 x 2 )
         -----
           10
         - 10          ( 5 x 2 )
         -----
           03
          - 2          ( 1 x 2 )
          ----
           19
         - 18          ( 9 x 2 )
         -----
```
Remainder -->   1

Divide, Multiply, Subtract, Bring down, Repeat

Divide 2 into 17 (= 8)
Multiply 8 times 2 (= 16)
Subtract 16 from 17 (= 1)
Bring down the 5

Divide 2 into 15 (= 7)
Multiply 7 times 2 (= 14)
Subtract 14 from 15 (= 1)
Bring down the 0

Divide 2 into 10 (= 5)
Multiply 5 times 2 (= 10)
Subtract 10 from 10 (= 0)
Bring down the 3

Divide 2 into 03 (= 1)
Multiply 1 times 2 (= 2)
Subtract 2 from 03 (= 1)
Bring down the 9

Divide 2 into 19 (= 9)
Multiply 9 times 2 (= 18)
Subtract 18 from 19 (= 1)
Done. No more numbers to bring down.

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(3)

```
            66795 R2
         _____
      4 | 267182
         - 24          ( 6 x 4 )
         -----
           27
         - 24          ( 6 x 4 )
         -----
           31
         - 28          ( 7 x 4 )
         -----
           38
         - 36          ( 9 x 4 )
         -----
           22
         - 20          ( 5 x 4 )
         -----
```
Remainder -->   2

Divide, Multiply, Subtract, Bring down, Repeat

Divide 4 into 26 (= 6)
Multiply 6 times 4 (= 24)
Subtract 24 from 26 (= 2)
Bring down the 7

Divide 4 into 27 (= 6)
Multiply 6 times 4 (= 24)
Subtract 24 from 27 (= 3)
Bring down the 1

Divide 4 into 31 (= 7)
Multiply 7 times 4 (= 28)
Subtract 28 from 31 (= 3)
Bring down the 8

Divide 4 into 38 (= 9)
Multiply 9 times 4 (= 36)
Subtract 36 from 38 (= 2)
Bring down the 2

Divide 4 into 22 (= 5)
Multiply 5 times 4 (= 20)
Subtract 20 from 22 (= 2)
Done. No more numbers to bring down.