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)

$$2\overline{)368501}$$

(2)

$$8\overline{)127235}$$

(3)

$$9\overline{)976368}$$

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

(1)

```
    184250 R1
  ---------
2 | 368501
    - 2          ( 1 x 2 )
    ---
      16
    - 16         ( 8 x 2 )
    ----
       08
     - 8         ( 4 x 2 )
     ---
       05
     - 4         ( 2 x 2 )
     ---
       10
     - 10        ( 5 x 2 )
     ----
        01
      - 0        ( 0 x 2 )
      ---
Remainder -->  1
```

Divide, Multiply, Subtract, Bring down, Repeat

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

Divide 2 into 16 (= 8)
Multiply 8 times 2 (= 16)
Subtract 16 from 16 (= 0)
Bring down the 8

Divide 2 into 08 (= 4)
Multiply 4 times 2 (= 8)
Subtract 8 from 08 (= 0)
Bring down the 5

Divide 2 into 05 (= 2)
Multiply 2 times 2 (= 4)
Subtract 4 from 05 (= 1)
Bring down the 0

Divide 2 into 10 (= 5)
Multiply 5 times 2 (= 10)
Subtract 10 from 10 (= 0)
Bring down the 1

Divide 2 into 01 (= 0)
Multiply 0 times 2 (= 0)
Subtract 0 from 01 (= 1)
Done. No more numbers to bring down.

(2)

```
    15904 R3
  ---------
8 | 127235
    - 8          ( 1 x 8 )
    ---
      47
    - 40         ( 5 x 8 )
    ----
       72
     - 72        ( 9 x 8 )
     ---
       03
     - 0         ( 0 x 8 )
     ---
       35
     - 32        ( 4 x 8 )
     ----
Remainder -->  3
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 8 into 12 (= 1)
Multiply 1 times 8 (= 8)
Subtract 8 from 12 (= 4)
Bring down the 7

Divide 8 into 47 (= 5)
Multiply 5 times 8 (= 40)
Subtract 40 from 47 (= 7)
Bring down the 2

Divide 8 into 72 (= 9)
Multiply 9 times 8 (= 72)
Subtract 72 from 72 (= 0)
Bring down the 3

Divide 8 into 03 (= 0)
Multiply 0 times 8 (= 0)
Subtract 0 from 03 (= 3)
Bring down the 5

Divide 8 into 35 (= 4)
Multiply 4 times 8 (= 32)
Subtract 32 from 35 (= 3)
Done. No more numbers to bring down.

(3)

```
    108485 R3
  ---------
9 | 976368
    - 9          ( 1 x 9 )
    ---
      07
    - 0          ( 0 x 9 )
    ---
      76
    - 72         ( 8 x 9 )
    ----
       43
     - 36        ( 4 x 9 )
     ---
       76
     - 72        ( 8 x 9 )
     ----
        48
      - 45       ( 5 x 9 )
      ---
Remainder -->  3
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 9 into 9 (= 1)
Multiply 1 times 9 (= 9)
Subtract 9 from 9 (= 0)
Bring down the 7

Divide 9 into 07 (= 0)
Multiply 0 times 9 (= 0)
Subtract 0 from 07 (= 7)
Bring down the 6

Divide 9 into 76 (= 8)
Multiply 8 times 9 (= 72)
Subtract 72 from 76 (= 4)
Bring down the 3

Divide 9 into 43 (= 4)
Multiply 4 times 9 (= 36)
Subtract 36 from 43 (= 7)
Bring down the 6

Divide 9 into 76 (= 8)
Multiply 8 times 9 (= 72)
Subtract 72 from 76 (= 4)
Bring down the 8

Divide 9 into 48 (= 5)
Multiply 5 times 9 (= 45)
Subtract 45 from 48 (= 3)
Done. No more numbers to bring down.