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)

$$4\overline{)904841}$$

(2)

$$8\overline{)100247}$$

(3)

$$5\overline{)296790}$$

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

(1)

```
      226210 R1
   4 | 904841
     - 8          ( 2 x 4 )
       10
     - 8          ( 2 x 4 )
       24
     - 24         ( 6 x 4 )
        08
      - 8         ( 2 x 4 )
        04
       - 4        ( 1 x 4 )
         01
       - 0        ( 0 x 4 )
         1
```

Remainder --> 1

Divide, Multiply, Subtract, Bring down, Repeat

Divide 4 into 9 (= 2)
Multiply 2 times 4 (= 8)
Subtract 8 from 9 (= 1)
Bring down the 0

Divide 4 into 10 (= 2)
Multiply 2 times 4 (= 8)
Subtract 8 from 10 (= 2)
Bring down the 4

Divide 4 into 24 (= 6)
Multiply 6 times 4 (= 24)
Subtract 24 from 24 (= 0)
Bring down the 8

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

Divide 4 into 04 (= 1)
Multiply 1 times 4 (= 4)
Subtract 4 from 04 (= 0)
Bring down the 1

Divide 4 into 01 (= 0)
Multiply 0 times 4 (= 0)
Subtract 0 from 01 (= 1)
Done. No more numbers to bring down.

(2)

```
      12530 R7
   8 | 100247
     - 8          ( 1 x 8 )
       20
     - 16         ( 2 x 8 )
       42
     - 40         ( 5 x 8 )
        24
      - 24        ( 3 x 8 )
        07
      - 0         ( 0 x 8 )
        7
```

Remainder --> 7

Divide, Multiply, Subtract, Bring down, Repeat

Divide 8 into 10 (= 1)
Multiply 1 times 8 (= 8)
Subtract 8 from 10 (= 2)
Bring down the 0

Divide 8 into 20 (= 2)
Multiply 2 times 8 (= 16)
Subtract 16 from 20 (= 4)
Bring down the 2

Divide 8 into 42 (= 5)
Multiply 5 times 8 (= 40)
Subtract 40 from 42 (= 2)
Bring down the 4

Divide 8 into 24 (= 3)
Multiply 3 times 8 (= 24)
Subtract 24 from 24 (= 0)
Bring down the 7

Divide 8 into 07 (= 0)
Multiply 0 times 8 (= 0)
Subtract 0 from 07 (= 7)
Done. No more numbers to bring down.

(3)

```
      59358 R0
   5 | 296790
     - 25         ( 5 x 5 )
       46
     - 45         ( 9 x 5 )
       17
     - 15         ( 3 x 5 )
        29
      - 25        ( 5 x 5 )
        40
      - 40        ( 8 x 5 )
        0
```

Remainder --> 0

Divide, Multiply, Subtract, Bring down, Repeat

Divide 5 into 29 (= 5)
Multiply 5 times 5 (= 25)
Subtract 25 from 29 (= 4)
Bring down the 6

Divide 5 into 46 (= 9)
Multiply 9 times 5 (= 45)
Subtract 45 from 46 (= 1)
Bring down the 7

Divide 5 into 17 (= 3)
Multiply 3 times 5 (= 15)
Subtract 15 from 17 (= 2)
Bring down the 9

Divide 5 into 29 (= 5)
Multiply 5 times 5 (= 25)
Subtract 25 from 29 (= 4)
Bring down the 0

Divide 5 into 40 (= 8)
Multiply 8 times 5 (= 40)
Subtract 40 from 40 (= 0)
Done. No more numbers to bring down.