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)

$$3\overline{)28143}$$

(2)

$$2\overline{)24808}$$

(3)

$$7\overline{)62913}$$

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

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(1)

$$
\begin{array}{r}
9381 \ R0 \\
3 \overline{) \ 28143} \\
\end{array}
$$

```
          9381 R0
      ┌─────────
   3  │ 28143
      −  27          ( 9 x 3 )
      ─────
         11
       −  9           ( 3 x 3 )
       ─────
         24
       − 24           ( 8 x 3 )
       ─────
         03
        − 3           ( 1 x 3 )
       ─────
          0
```
Remainder --> 0

Divide, Multiply, Subtract, Bring down, Repeat

Divide 3 into 28 (= 9)
Multiply 9 times 3 (= 27)
Subtract 27 from 28 (= 1)
Bring down the 1

Divide 3 into 11 (= 3)
Multiply 3 times 3 (= 9)
Subtract 9 from 11 (= 2)
Bring down the 4

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

Divide 3 into 03 (= 1)
Multiply 1 times 3 (= 3)
Subtract 3 from 03 (= 0)
Done. No more numbers to bring down.

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(2)

```
         12404 R0
      ┌─────────
   2  │ 24808
      −  2           ( 1 x 2 )
      ─────
         04
        − 4          ( 2 x 2 )
       ─────
         08
        − 8          ( 4 x 2 )
       ─────
         00
        − 0          ( 0 x 2 )
       ─────
         08
        − 8          ( 4 x 2 )
       ─────
          0
```
Remainder --> 0

Divide, Multiply, Subtract, Bring down, Repeat

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

Divide 2 into 04 (= 2)
Multiply 2 times 2 (= 4)
Subtract 4 from 04 (= 0)
Bring down the 8

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

Divide 2 into 00 (= 0)
Multiply 0 times 2 (= 0)
Subtract 0 from 00 (= 0)
Bring down the 8

Divide 2 into 08 (= 4)
Multiply 4 times 2 (= 8)
Subtract 8 from 08 (= 0)
Done. No more numbers to bring down.

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(3)

```
          8987 R4
      ┌─────────
   7  │ 62913
      −  56          ( 8 x 7 )
      ─────
         69
       − 63           ( 9 x 7 )
       ─────
         61
       − 56           ( 8 x 7 )
       ─────
         53
       − 49           ( 7 x 7 )
       ─────
          4
```
Remainder --> 4

Divide, Multiply, Subtract, Bring down, Repeat

Divide 7 into 62 (= 8)
Multiply 8 times 7 (= 56)
Subtract 56 from 62 (= 6)
Bring down the 9

Divide 7 into 69 (= 9)
Multiply 9 times 7 (= 63)
Subtract 63 from 69 (= 6)
Bring down the 1

Divide 7 into 61 (= 8)
Multiply 8 times 7 (= 56)
Subtract 56 from 61 (= 5)
Bring down the 3

Divide 7 into 53 (= 7)
Multiply 7 times 7 (= 49)
Subtract 49 from 53 (= 4)
Done. No more numbers to bring down.