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)

$$7\overline{)810704}$$

(2)

$$2\overline{)460911}$$

(3)

$$6\overline{)262929}$$

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

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

(1)

```
        115814 R6
     ┌──────────
  7  │ 810704
      −  7            ( 1 x 7 )
      ─────
        11
      −  7            ( 1 x 7 )
      ─────
         40
      − 35            ( 5 x 7 )
      ─────
         57
      − 56            ( 8 x 7 )
      ─────
         10
      −  7            ( 1 x 7 )
      ─────
         34
      − 28            ( 4 x 7 )
      ─────
```
Remainder -->   6

Divide, Multiply, Subtract, Bring down, Repeat

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

Divide 7 into 11 (= 1)
Multiply 1 times 7 (= 7)
Subtract 7 from 11 (= 4)
Bring down the 0

Divide 7 into 40 (= 5)
Multiply 5 times 7 (= 35)
Subtract 35 from 40 (= 5)
Bring down the 7

Divide 7 into 57 (= 8)
Multiply 8 times 7 (= 56)
Subtract 56 from 57 (= 1)
Bring down the 0

Divide 7 into 10 (= 1)
Multiply 1 times 7 (= 7)
Subtract 7 from 10 (= 3)
Bring down the 4

Divide 7 into 34 (= 4)
Multiply 4 times 7 (= 28)
Subtract 28 from 34 (= 6)
Done. No more numbers to bring down.

(2)

```
        230455 R1
     ┌──────────
  2  │ 460911
      −  4            ( 2 x 2 )
      ─────
        06
      −  6            ( 3 x 2 )
      ─────
        00
      −  0            ( 0 x 2 )
      ─────
        09
      −  8            ( 4 x 2 )
      ─────
        11
      − 10            ( 5 x 2 )
      ─────
        11
      − 10            ( 5 x 2 )
      ─────
```
Remainder -->   1

Divide, Multiply, Subtract, Bring down, Repeat

Divide 2 into 4 (= 2)
Multiply 2 times 2 (= 4)
Subtract 4 from 4 (= 0)
Bring down the 6

Divide 2 into 06 (= 3)
Multiply 3 times 2 (= 6)
Subtract 6 from 06 (= 0)
Bring down the 0

Divide 2 into 00 (= 0)
Multiply 0 times 2 (= 0)
Subtract 0 from 00 (= 0)
Bring down the 9

Divide 2 into 09 (= 4)
Multiply 4 times 2 (= 8)
Subtract 8 from 09 (= 1)
Bring down the 1

Divide 2 into 11 (= 5)
Multiply 5 times 2 (= 10)
Subtract 10 from 11 (= 1)
Bring down the 1

Divide 2 into 11 (= 5)
Multiply 5 times 2 (= 10)
Subtract 10 from 11 (= 1)
Done. No more numbers to bring down.

(3)

```
        43821 R3
     ┌──────────
  6  │ 262929
      − 24            ( 4 x 6 )
      ─────
        22
      − 18            ( 3 x 6 )
      ─────
        49
      − 48            ( 8 x 6 )
      ─────
        12
      − 12            ( 2 x 6 )
      ─────
        09
      −  6            ( 1 x 6 )
      ─────
```
Remainder -->   3

Divide, Multiply, Subtract, Bring down, Repeat

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

Divide 6 into 22 (= 3)
Multiply 3 times 6 (= 18)
Subtract 18 from 22 (= 4)
Bring down the 9

Divide 6 into 49 (= 8)
Multiply 8 times 6 (= 48)
Subtract 48 from 49 (= 1)
Bring down the 2

Divide 6 into 12 (= 2)
Multiply 2 times 6 (= 12)
Subtract 12 from 12 (= 0)
Bring down the 9

Divide 6 into 09 (= 1)
Multiply 1 times 6 (= 6)
Subtract 6 from 09 (= 3)
Done. No more numbers to bring down.