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)

$$2 \overline{)8172621}$$

(2)

$$2 \overline{)4034249}$$

(3)

$$4 \overline{)7258503}$$

Solved Long Division Problems with Step-By-Step Walkthrough

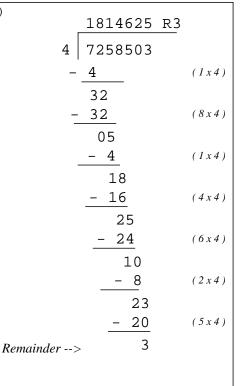Steps: (1) Divide   (2) Multiply   (3) Subtract   (4) Bring down the next number   (5) Repeat if needed

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

(1)

```
              4086310 R1
      2 | 8172621
        -  8           ( 4 x 2 )
           01
         -  0           ( 0 x 2 )
           17
         - 16           ( 8 x 2 )
           12
         - 12           ( 6 x 2 )
           06
          - 6           ( 3 x 2 )
           02
          - 2           ( 1 x 2 )
           01
          - 0           ( 0 x 2 )
Remainder -->  1
```

Divide, Multiply, Subtract, Bring down, Repeat

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

Divide 2 into 01 (= 0)
Multiply 0 times 2 (= 0)
Subtract 0 from 01 (= 1)
Bring down the 7

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

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

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

Divide 2 into 02 (= 1)
Multiply 1 times 2 (= 2)
Subtract 2 from 02 (= 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)

```
              2017124 R1
      2 | 4034249
        -  4           ( 2 x 2 )
           00
         -  0           ( 0 x 2 )
           03
         -  2           ( 1 x 2 )
           14
         - 14           ( 7 x 2 )
           02
         -  2           ( 1 x 2 )
           04
         -  4           ( 2 x 2 )
           09
         -  8           ( 4 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 0

Divide 2 into 00 (= 0)
Multiply 0 times 2 (= 0)
Subtract 0 from 00 (= 0)
Bring down the 3

Divide 2 into 03 (= 1)
Multiply 1 times 2 (= 2)
Subtract 2 from 03 (= 1)
Bring down the 4

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

Divide 2 into 02 (= 1)
Multiply 1 times 2 (= 2)
Subtract 2 from 02 (= 0)
Bring down the 4

Divide 2 into 04 (= 2)
Multiply 2 times 2 (= 4)
Subtract 4 from 04 (= 0)
Bring down the 9

Divide 2 into 09 (= 4)
Multiply 4 times 2 (= 8)
Subtract 8 from 09 (= 1)
Done. No more numbers to bring down.

(3)

```
              1814625 R3
      4 | 7258503
        -  4           ( 1 x 4 )
           32
         - 32           ( 8 x 4 )
           05
         -  4           ( 1 x 4 )
           18
         - 16           ( 4 x 4 )
           25
         - 24           ( 6 x 4 )
           10
         -  8           ( 2 x 4 )
           23
         - 20           ( 5 x 4 )
Remainder -->  3
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 4 into 7 (= 1)
Multiply 1 times 4 (= 4)
Subtract 4 from 7 (= 3)
Bring down the 2

Divide 4 into 32 (= 8)
Multiply 8 times 4 (= 32)
Subtract 32 from 32 (= 0)
Bring down the 5

Divide 4 into 05 (= 1)
Multiply 1 times 4 (= 4)
Subtract 4 from 05 (= 1)
Bring down the 8

Divide 4 into 18 (= 4)
Multiply 4 times 4 (= 16)
Subtract 16 from 18 (= 2)
Bring down the 5

Divide 4 into 25 (= 6)
Multiply 6 times 4 (= 24)
Subtract 24 from 25 (= 1)
Bring down the 0

Divide 4 into 10 (= 2)
Multiply 2 times 4 (= 8)
Subtract 8 from 10 (= 2)
Bring down the 3

Divide 4 into 23 (= 5)
Multiply 5 times 4 (= 20)
Subtract 20 from 23 (= 3)
Done. No more numbers to bring down.