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)

$9 \overline{)76796}$

(2)

$5 \overline{)74959}$

(3)

$4 \overline{)34542}$

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

(1)

```
          8532 R8
      ┌─────────
    9 │ 76796
        -  72           ( 8 x 9 )
          ─────
           47
        -  45           ( 5 x 9 )
          ─────
           29
        -  27           ( 3 x 9 )
          ─────
           26
        -  18           ( 2 x 9 )
          ─────
Remainder -->   8
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 9 into 76 (= 8)
Multiply 8 times 9 (= 72)
Subtract 72 from 76 (= 4)
Bring down the 7

Divide 9 into 47 (= 5)
Multiply 5 times 9 (= 45)
Subtract 45 from 47 (= 2)
Bring down the 9

Divide 9 into 29 (= 3)
Multiply 3 times 9 (= 27)
Subtract 27 from 29 (= 2)
Bring down the 6

Divide 9 into 26 (= 2)
Multiply 2 times 9 (= 18)
Subtract 18 from 26 (= 8)
Done. No more numbers to bring down.

(2)

```
          14991 R4
      ┌─────────
    5 │ 74959
        -  5            ( 1 x 5 )
          ─────
           24
        -  20           ( 4 x 5 )
          ─────
           49
        -  45           ( 9 x 5 )
          ─────
           45
        -  45           ( 9 x 5 )
          ─────
           09
         -  5           ( 1 x 5 )
          ─────
Remainder -->   4
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 5 into 7 (= 1)
Multiply 1 times 5 (= 5)
Subtract 5 from 7 (= 2)
Bring down the 4

Divide 5 into 24 (= 4)
Multiply 4 times 5 (= 20)
Subtract 20 from 24 (= 4)
Bring down the 9

Divide 5 into 49 (= 9)
Multiply 9 times 5 (= 45)
Subtract 45 from 49 (= 4)
Bring down the 5

Divide 5 into 45 (= 9)
Multiply 9 times 5 (= 45)
Subtract 45 from 45 (= 0)
Bring down the 9

Divide 5 into 09 (= 1)
Multiply 1 times 5 (= 5)
Subtract 5 from 09 (= 4)
Done. No more numbers to bring down.

(3)

```
          8635 R2
      ┌─────────
    4 │ 34542
        -  32           ( 8 x 4 )
          ─────
           25
        -  24           ( 6 x 4 )
          ─────
           14
        -  12           ( 3 x 4 )
          ─────
           22
        -  20           ( 5 x 4 )
          ─────
Remainder -->   2
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 4 into 34 (= 8)
Multiply 8 times 4 (= 32)
Subtract 32 from 34 (= 2)
Bring down the 5

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

Divide 4 into 14 (= 3)
Multiply 3 times 4 (= 12)
Subtract 12 from 14 (= 2)
Bring down the 2

Divide 4 into 22 (= 5)
Multiply 5 times 4 (= 20)
Subtract 20 from 22 (= 2)
Done. No more numbers to bring down.