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)

$3\overline{)518080}$

(2)

$9\overline{)583245}$

(3)

$4\overline{)925411}$

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

(1)

```
   172693 R1
3 | 518080
  - 3          ( 1 x 3 )
    21
  - 21         ( 7 x 3 )
     08
   - 6         ( 2 x 3 )
      20
    - 18       ( 6 x 3 )
       28
     - 27      ( 9 x 3 )
        10
      - 9      ( 3 x 3 )
         1
```

Remainder --> 1

Divide, Multiply, Subtract, Bring down, Repeat

Divide 3 into 5 (= 1)
Multiply 1 times 3 (= 3)
Subtract 3 from 5 (= 2)
Bring down the 1

Divide 3 into 21 (= 7)
Multiply 7 times 3 (= 21)
Subtract 21 from 21 (= 0)
Bring down the 8

Divide 3 into 08 (= 2)
Multiply 2 times 3 (= 6)
Subtract 6 from 08 (= 2)
Bring down the 0

Divide 3 into 20 (= 6)
Multiply 6 times 3 (= 18)
Subtract 18 from 20 (= 2)
Bring down the 8

Divide 3 into 28 (= 9)
Multiply 9 times 3 (= 27)
Subtract 27 from 28 (= 1)
Bring down the 0

Divide 3 into 10 (= 3)
Multiply 3 times 3 (= 9)
Subtract 9 from 10 (= 1)
Done. No more numbers to bring down.

(2)

```
   64805 R0
9 | 583245
  - 54         ( 6 x 9 )
    43
  - 36         ( 4 x 9 )
     72
   - 72        ( 8 x 9 )
      04
    - 0        ( 0 x 9 )
       45
     - 45      ( 5 x 9 )
        0
```

Remainder --> 0

Divide, Multiply, Subtract, Bring down, Repeat

Divide 9 into 58 (= 6)
Multiply 6 times 9 (= 54)
Subtract 54 from 58 (= 4)
Bring down the 3

Divide 9 into 43 (= 4)
Multiply 4 times 9 (= 36)
Subtract 36 from 43 (= 7)
Bring down the 2

Divide 9 into 72 (= 8)
Multiply 8 times 9 (= 72)
Subtract 72 from 72 (= 0)
Bring down the 4

Divide 9 into 04 (= 0)
Multiply 0 times 9 (= 0)
Subtract 0 from 04 (= 4)
Bring down the 5

Divide 9 into 45 (= 5)
Multiply 5 times 9 (= 45)
Subtract 45 from 45 (= 0)
Done. No more numbers to bring down.

(3)

```
   231352 R3
4 | 925411
  - 8          ( 2 x 4 )
    12
  - 12         ( 3 x 4 )
     05
   - 4         ( 1 x 4 )
      14
    - 12       ( 3 x 4 )
       21
     - 20      ( 5 x 4 )
        11
      - 8      ( 2 x 4 )
         3
```

Remainder --> 3

Divide, Multiply, Subtract, Bring down, Repeat

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

Divide 4 into 12 (= 3)
Multiply 3 times 4 (= 12)
Subtract 12 from 12 (= 0)
Bring down the 5

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

Divide 4 into 14 (= 3)
Multiply 3 times 4 (= 12)
Subtract 12 from 14 (= 2)
Bring down the 1

Divide 4 into 21 (= 5)
Multiply 5 times 4 (= 20)
Subtract 20 from 21 (= 1)
Bring down the 1

Divide 4 into 11 (= 2)
Multiply 2 times 4 (= 8)
Subtract 8 from 11 (= 3)
Done. No more numbers to bring down.