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)

177 | 7075572

(2)

112 | 1435771

(3)

871 | 8671009

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

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(1)

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                39974  R174
        ┌─────────────
   177  │  7075572
        -   531           ( 3 x 177 )
            1765
        -   1593          ( 9 x 177 )
            1725
        -   1593          ( 9 x 177 )
            1327
        -   1239          ( 7 x 177 )
             882
        -    708          ( 4 x 177 )
Remainder -->    174
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 177 into 707 (= 3)
Multiply 3 times 177 (= 531)
Subtract 531 from 707 (= 176)
Bring down the 5

Divide 177 into 1765 (= 9)
Multiply 9 times 177 (= 1593)
Subtract 1593 from 1765 (= 172)
Bring down the 5

Divide 177 into 1725 (= 9)
Multiply 9 times 177 (= 1593)
Subtract 1593 from 1725 (= 132)
Bring down the 7

Divide 177 into 1327 (= 7)
Multiply 7 times 177 (= 1239)
Subtract 1239 from 1327 (= 88)
Bring down the 2

Divide 177 into 882 (= 4)
Multiply 4 times 177 (= 708)
Subtract 708 from 882 (= 174)
Done. No more numbers to bring down.

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(2)

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                12819  R43
        ┌─────────────
   112  │  1435771
        -   112           ( 1 x 112 )
            315
        -   224           ( 2 x 112 )
            917
        -   896           ( 8 x 112 )
            217
        -   112           ( 1 x 112 )
            1051
        -   1008          ( 9 x 112 )
Remainder -->    43
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 112 into 143 (= 1)
Multiply 1 times 112 (= 112)
Subtract 112 from 143 (= 31)
Bring down the 5

Divide 112 into 315 (= 2)
Multiply 2 times 112 (= 224)
Subtract 224 from 315 (= 91)
Bring down the 7

Divide 112 into 917 (= 8)
Multiply 8 times 112 (= 896)
Subtract 896 from 917 (= 21)
Bring down the 7

Divide 112 into 217 (= 1)
Multiply 1 times 112 (= 112)
Subtract 112 from 217 (= 105)
Bring down the 1

Divide 112 into 1051 (= 9)
Multiply 9 times 112 (= 1008)
Subtract 1008 from 1051 (= 43)
Done. No more numbers to bring down.

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(3)

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                 9955  R204
        ┌─────────────
   871  │  8671009
        -   7839          ( 9 x 871 )
            8320
        -   7839          ( 9 x 871 )
            4810
        -   4355          ( 5 x 871 )
            4559
        -   4355          ( 5 x 871 )
Remainder -->    204
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 871 into 8671 (= 9)
Multiply 9 times 871 (= 7839)
Subtract 7839 from 8671 (= 832)
Bring down the 0

Divide 871 into 8320 (= 9)
Multiply 9 times 871 (= 7839)
Subtract 7839 from 8320 (= 481)
Bring down the 0

Divide 871 into 4810 (= 5)
Multiply 5 times 871 (= 4355)
Subtract 4355 from 4810 (= 455)
Bring down the 9

Divide 871 into 4559 (= 5)
Multiply 5 times 871 (= 4355)
Subtract 4355 from 4559 (= 204)
Done. No more numbers to bring down.