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)

$231 \overline{)8767780}$

(2)

$263 \overline{)4233186}$

(3)

$225 \overline{)6411302}$

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

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(1)

```
              37955 R175
      231 | 8767780
          -  693          ( 3 x 231 )
             1837
          -  1617         ( 7 x 231 )
             2207
          -  2079         ( 9 x 231 )
             1288
          -  1155         ( 5 x 231 )
             1330
          -  1155         ( 5 x 231 )
Remainder -->   175
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 231 into 876 (= 3)
Multiply 3 times 231 (= 693)
Subtract 693 from 876 (= 183)
Bring down the 7

Divide 231 into 1837 (= 7)
Multiply 7 times 231 (= 1617)
Subtract 1617 from 1837 (= 220)
Bring down the 7

Divide 231 into 2207 (= 9)
Multiply 9 times 231 (= 2079)
Subtract 2079 from 2207 (= 128)
Bring down the 8

Divide 231 into 1288 (= 5)
Multiply 5 times 231 (= 1155)
Subtract 1155 from 1288 (= 133)
Bring down the 0

Divide 231 into 1330 (= 5)
Multiply 5 times 231 (= 1155)
Subtract 1155 from 1330 (= 175)
Done. No more numbers to bring down.

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(2)

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              16095 R201
      263 | 4233186
          -  263          ( 1 x 263 )
             1603
          -  1578         ( 6 x 263 )
             251
          -    0          ( 0 x 263 )
             2518
          -  2367         ( 9 x 263 )
             1516
          -  1315         ( 5 x 263 )
Remainder -->   201
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 263 into 423 (= 1)
Multiply 1 times 263 (= 263)
Subtract 263 from 423 (= 160)
Bring down the 3

Divide 263 into 1603 (= 6)
Multiply 6 times 263 (= 1578)
Subtract 1578 from 1603 (= 25)
Bring down the 1

Divide 263 into 251 (= 0)
Multiply 0 times 263 (= 0)
Subtract 0 from 251 (= 251)
Bring down the 8

Divide 263 into 2518 (= 9)
Multiply 9 times 263 (= 2367)
Subtract 2367 from 2518 (= 151)
Bring down the 6

Divide 263 into 1516 (= 5)
Multiply 5 times 263 (= 1315)
Subtract 1315 from 1516 (= 201)
Done. No more numbers to bring down.

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(3)

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              28494 R152
      225 | 6411302
          -  450          ( 2 x 225 )
             1911
          -  1800         ( 8 x 225 )
             1113
          -  900          ( 4 x 225 )
             2130
          -  2025         ( 9 x 225 )
             1052
          -  900          ( 4 x 225 )
Remainder -->   152
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 225 into 641 (= 2)
Multiply 2 times 225 (= 450)
Subtract 450 from 641 (= 191)
Bring down the 1

Divide 225 into 1911 (= 8)
Multiply 8 times 225 (= 1800)
Subtract 1800 from 1911 (= 111)
Bring down the 3

Divide 225 into 1113 (= 4)
Multiply 4 times 225 (= 900)
Subtract 900 from 1113 (= 213)
Bring down the 0

Divide 225 into 2130 (= 9)
Multiply 9 times 225 (= 2025)
Subtract 2025 from 2130 (= 105)
Bring down the 2

Divide 225 into 1052 (= 4)
Multiply 4 times 225 (= 900)
Subtract 900 from 1052 (= 152)
Done. No more numbers to bring down.