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)

$$425 \overline{)2757423}$$

(2)

$$728 \overline{)4605092}$$

(3)

$$600 \overline{)4766831}$$

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

(1)

```
          6488 R23
      ------------
425 | 2757423
    - 2550          ( 6 x 425 )
      ----
       2074
     - 1700         ( 4 x 425 )
       ----
        3742
      - 3400        ( 8 x 425 )
        ----
         3423
       - 3400       ( 8 x 425 )
         ----
Remainder -->  23
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 425 into 2757 (= 6)
Multiply 6 times 425 (= 2550)
Subtract 2550 from 2757 (= 207)
Bring down the 4

Divide 425 into 2074 (= 4)
Multiply 4 times 425 (= 1700)
Subtract 1700 from 2074 (= 374)
Bring down the 2

Divide 425 into 3742 (= 8)
Multiply 8 times 425 (= 3400)
Subtract 3400 from 3742 (= 342)
Bring down the 3

Divide 425 into 3423 (= 8)
Multiply 8 times 425 (= 3400)
Subtract 3400 from 3423 (= 23)
Done. No more numbers to bring down.

(2)

```
          6325 R492
      ------------
728 | 4605092
    - 4368          ( 6 x 728 )
      ----
       2370
     - 2184         ( 3 x 728 )
       ----
        1869
      - 1456        ( 2 x 728 )
        ----
         4132
       - 3640       ( 5 x 728 )
         ----
Remainder -->  492
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 728 into 4605 (= 6)
Multiply 6 times 728 (= 4368)
Subtract 4368 from 4605 (= 237)
Bring down the 0

Divide 728 into 2370 (= 3)
Multiply 3 times 728 (= 2184)
Subtract 2184 from 2370 (= 186)
Bring down the 9

Divide 728 into 1869 (= 2)
Multiply 2 times 728 (= 1456)
Subtract 1456 from 1869 (= 413)
Bring down the 2

Divide 728 into 4132 (= 5)
Multiply 5 times 728 (= 3640)
Subtract 3640 from 4132 (= 492)
Done. No more numbers to bring down.

(3)

```
          7944 R431
      ------------
600 | 4766831
    - 4200          ( 7 x 600 )
      ----
       5668
     - 5400         ( 9 x 600 )
       ----
        2683
      - 2400        ( 4 x 600 )
        ----
         2831
       - 2400       ( 4 x 600 )
         ----
Remainder -->  431
```

Divide, Multiply, Subtract, Bring down, Repeat

Divide 600 into 4766 (= 7)
Multiply 7 times 600 (= 4200)
Subtract 4200 from 4766 (= 566)
Bring down the 8

Divide 600 into 5668 (= 9)
Multiply 9 times 600 (= 5400)
Subtract 5400 from 5668 (= 268)
Bring down the 3

Divide 600 into 2683 (= 4)
Multiply 4 times 600 (= 2400)
Subtract 2400 from 2683 (= 283)
Bring down the 1

Divide 600 into 2831 (= 4)
Multiply 4 times 600 (= 2400)
Subtract 2400 from 2831 (= 431)
Done. No more numbers to bring down.