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)

$24\overline{)77796}$

(2)

$73\overline{)76656}$

(3)

$42\overline{)59471}$

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

(1)

```
      3241 R12
   ---------
24 | 77796
     - 72        ( 3 x 24 )
     ----
      57
     - 48        ( 2 x 24 )
     ----
      99
     - 96        ( 4 x 24 )
     ----
      36
     - 24        ( 1 x 24 )
     ----
      12
```

Remainder --> 12

Divide, Multiply, Subtract, Bring down, Repeat

Divide 24 into 77 (= 3)
Multiply 3 times 24 (= 72)
Subtract 72 from 77 (= 5)
Bring down the 7

Divide 24 into 57 (= 2)
Multiply 2 times 24 (= 48)
Subtract 48 from 57 (= 9)
Bring down the 9

Divide 24 into 99 (= 4)
Multiply 4 times 24 (= 96)
Subtract 96 from 99 (= 3)
Bring down the 6

Divide 24 into 36 (= 1)
Multiply 1 times 24 (= 24)
Subtract 24 from 36 (= 12)
Done. No more numbers to bring down.

(2)

```
      1050 R6
   ---------
73 | 76656
     - 73        ( 1 x 73 )
     ----
      36
     - 0         ( 0 x 73 )
     ----
      365
     - 365       ( 5 x 73 )
     ----
      06
     - 0         ( 0 x 73 )
     ----
      6
```

Remainder --> 6

Divide, Multiply, Subtract, Bring down, Repeat

Divide 73 into 76 (= 1)
Multiply 1 times 73 (= 73)
Subtract 73 from 76 (= 3)
Bring down the 6

Divide 73 into 36 (= 0)
Multiply 0 times 73 (= 0)
Subtract 0 from 36 (= 36)
Bring down the 5

Divide 73 into 365 (= 5)
Multiply 5 times 73 (= 365)
Subtract 365 from 365 (= 0)
Bring down the 6

Divide 73 into 06 (= 0)
Multiply 0 times 73 (= 0)
Subtract 0 from 06 (= 6)
Done. No more numbers to bring down.

(3)

```
      1415 R41
   ---------
42 | 59471
     - 42        ( 1 x 42 )
     ----
      174
     - 168       ( 4 x 42 )
     ----
      67
     - 42        ( 1 x 42 )
     ----
      251
     - 210       ( 5 x 42 )
     ----
      41
```

Remainder --> 41

Divide, Multiply, Subtract, Bring down, Repeat

Divide 42 into 59 (= 1)
Multiply 1 times 42 (= 42)
Subtract 42 from 59 (= 17)
Bring down the 4

Divide 42 into 174 (= 4)
Multiply 4 times 42 (= 168)
Subtract 168 from 174 (= 6)
Bring down the 7

Divide 42 into 67 (= 1)
Multiply 1 times 42 (= 42)
Subtract 42 from 67 (= 25)
Bring down the 1

Divide 42 into 251 (= 5)
Multiply 5 times 42 (= 210)
Subtract 210 from 251 (= 41)
Done. No more numbers to bring down.