Long Division (7): Two-Step Word Problems

NAME: _____ CLASS: _____ DATE: _____ SCORE: ☐

WORKED EXAMPLE · THE MATRIX METHOD™

John had 425 marbles at first. He then bought 83 more marbles. He divided all his marbles equally into 4 bags. How many marbles are in each bag?

```
      1   2   7
   ┌──────────
 4 │ 5   0   8
     4
     ─
     1   0
         8
         ─
         2   8
         2   8
         ─────
             0
```

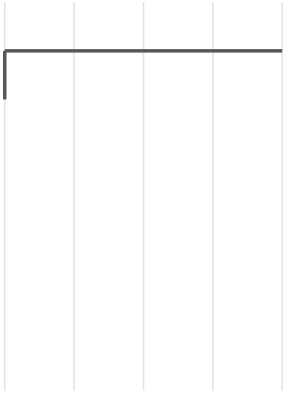
Total number of marbles = 425 + 83
= **508**

Number of marbles in 1 bag = 508 ÷ 4
= **127**

Ans: 127 marbles

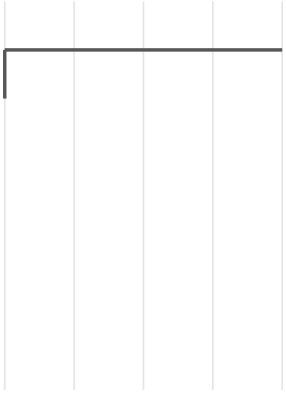
Work out the total, or what is left, before you divide. [15 marks]

(1) Amber had 246 stamps. She collected 132 more. She put them equally into 3 albums. How many stamps were in each album? **[3]**



Ans: _____ stamps

(2) A jug had 940 ml of syrup. 460 ml was used. The rest was poured equally into 4 bottles. How much syrup was in each bottle? **[3]**



Ans: _____ ml

Long Division (7): Two-Step Word Problems

(3) Yenni baked 215 tarts and then 145 more. She packed them equally into 5 boxes. How many tarts were in each box? **[3]**

Ans: _____ tarts

(4) A ribbon was 826 cm long. Peter cut off 158 cm. He cut the rest into 4 equal pieces. How long was each piece? **[3]**

Ans: _____ cm

(5) There were 384 chairs in a hall. 39 were removed. The rest were arranged in rows of 5. How many rows were there? **[3]**

Ans: _____ rows

Answer Key — Long Division (7): Two-Step Word Problems

MATRIX METHOD™ · THE STEPS

Step 1: Find the total, or find what is left, before you divide anything.
Step 2: Write that number sentence first and work out its answer.
Step 3: Divide that answer, not the number given at the start.

(1) Total number of stamps = 246 + 132
= **378**
Number of stamps in 1 album = 378 ÷ 3
= **126**

Ans: 126 stamps

(2) Volume of syrup left = 940 − 460
= **480 ml**
Volume of syrup in 1 bottle = 480 ÷ 4
= **120 ml**

Ans: 120 ml

(3) Total number of tarts = 215 + 145
= **360**
Number of tarts in 1 box = 360 ÷ 5
= **72**

Ans: 72 tarts

(4) Length of ribbon left = 826 − 158
= **668 cm**
Length of 1 piece = 668 ÷ 4
= **167 cm**

Ans: 167 cm

Answer Key — Long Division (7): Two-Step Word Problems

(5) Number of chairs left = 384 − 39
= **345**

Number of rows = 345 ÷ 5
= **69**

Ans: 69 rows

COMMON ERROR TO WATCH FOR

Pupils divide the first number they see. In question 1 they divide 246 by 3 and never add the 132. Two numbers given before the sharing always mean a step comes first.