

## Long Division (9): How Many More to Fill One More Group

NAME: \_\_\_\_\_ CLASS: \_\_\_\_\_ DATE: \_\_\_\_\_ SCORE:

### WORKED EXAMPLE • THE MATRIX METHOD™

Yenni packed 633 beads equally into 5 bags. Some were left. How many more beads are needed to fill 1 more bag?

|   |   |   |   |
|---|---|---|---|
|   | 1 | 2 | 6 |
| 5 | 6 | 3 | 3 |
|   | 5 |   |   |
|   | 1 | 3 |   |
|   | 1 | 0 |   |
|   |   | 3 | 3 |
|   |   | 3 | 0 |
|   |   | 3 | 3 |

$$\begin{aligned}
 633 \div 5 &= 126 \text{ R } 3 \\
 \text{Number of beads in 1 bag} &= 126 \\
 \text{Number of beads left over} &= 3 \\
 \text{Number of beads needed} &= 126 - 3 \\
 &= \mathbf{123}
 \end{aligned}$$

**Ans: 123 beads**

Find how many go into 1 full group before you subtract. [ 15 marks ]

- (1)** John packed 347 sweets equally into 4 bags. Some were left. How many more sweets are needed to fill 1 more bag? [3]

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Ans: \_\_\_\_\_ sweets

- (2)** A baker packed 235 buns into boxes of 4. Some were left. How many more buns are needed to fill 1 more box? [3]

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Ans: \_\_\_\_\_ buns



## Long Division (9): How Many More to Fill One More Group

- (3) Peter packed 284 marbles equally into 3 bags. Some were left. How many more marbles are needed to fill 1 more bag? [3]

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Ans: \_\_\_\_\_ marbles

- (4) A shop packed 361 tarts into boxes of 5. Some were left. How many more tarts are needed to fill 1 more box? [3]

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Ans: \_\_\_\_\_ tarts

- (5) Amber packed 457 beads equally into 5 jars. Some were left. How many more beads are needed to fill 1 more jar? [3]

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Ans: \_\_\_\_\_ beads

## Answer Key — Long Division (9): How Many More to Fill One More Group

### MATRIX METHOD™ • THE STEPS

Step 1: Divide. Write down the answer and the remainder.

Step 2: Find how many go into 1 full group. INTO 5 bags means the answer to the division. Bags OF 5 means 5.

**Step 3: Take away what is left over. That is how many more are needed.**

(1)  $347 \div 4 = 86 \text{ R } 3$   
 Number of sweets in 1 bag = 86  
 Number of sweets left over = 3  
 Number of sweets needed =  $86 - 3$   
 = **83**

**Ans: 83 sweets**

(2)  $235 \div 4 = 58 \text{ R } 3$   
 Number of buns in 1 box = 4  
 Number of buns left over = 3  
 Number of buns needed =  $4 - 3$   
 = **1**

**Ans: 1 bun**

(3)  $284 \div 3 = 94 \text{ R } 2$   
 Number of marbles in 1 bag = 94  
 Number of marbles left over = 2  
 Number of marbles needed =  $94 - 2$   
 = **92**

**Ans: 92 marbles**

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**Answer Key — Long Division (9): How Many More to Fill One More Group**

(4)  $361 \div 5$  = 72 R 1  
Number of tarts in 1 box = 5  
Number of tarts left over = 1  
Number of tarts needed =  $5 - 1$   
= **4**

**Ans: 4 tarts**

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(5)  $457 \div 5$  = 91 R 2  
Number of beads in 1 jar = 91  
Number of beads left over = 2  
Number of beads needed =  $91 - 2$   
= **89**

**Ans: 89 beads**

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**COMMON ERROR TO WATCH FOR**

Pupils give the remainder as the answer instead of subtracting it. They also use the wrong group size: packed INTO 4 bags means 1 bag holds the answer to the division, while packed into boxes OF 4 means 1 box holds only 4.