

WA4MNAMU2

Calculating with number

Core + Challenge

3-Digit × 1-Digit Multiplication

I can multiply a 3-digit number by a 1-digit number using the column method.

Name: _____ Date: _____ Score: / 53

Key idea

Column multiplication (3-digit × 1-digit): multiply the ones digit first, then the tens digit, then the hundreds digit, carrying any extra tens into the next column.

E.g. 234×5 : ones $4 \times 5 = 20$ (write 0, carry 2), tens $3 \times 5 = 15 + 2 = 17$ (write 7, carry 1), hundreds $2 \times 5 = 10 + 1 = 11 \rightarrow$ **1,170**.

A Fluency *practise the skill*

/16 marks

Multiply using the column method, carrying where needed.

1. 234×5 _____

2. 312×4 _____

3. 423×2 _____

4. 156×3 _____

5. 289×3 _____

6. 145×6 _____

7. 378×2 _____

8. 214×7 _____

9. 162×5 _____

10. 253×4 _____

11. 327×3 _____

12. 198×4 _____

13. 416×6 _____

14. 275×3 _____

15. 183×5 _____

16. 349×2 _____

B Core *apply the skill to problems*

/21 marks

1

A warehouse packs 234 items per box, with 5 boxes shipped. How many items were shipped in total?

[3 marks]

Answer: _____

2

A theatre has 312 seats per level across 4 levels. (a) How many seats does the theatre have in total? (b) If 1,000 tickets have been sold, how many seats remain unsold?

[4 marks]

3-Digit $\times$ 1-Digit Multiplication · WA4MNAMU2

Answer: _____

3

A factory produces 423 units per day for 2 days. How many units were produced in total?

[3 marks]

Answer: _____

4

A bakery sells 162 loaves per day for 5 days. (a) How many loaves were sold in total? (b) If the bakery wants to sell 1,000 loaves in total for the week, how many more loaves need to be sold after these 5 days?

[4 marks]

Answer: _____

5

A supplier orders 253 chairs per batch, with 4 batches ordered. How many chairs were ordered in total?

[3 marks]

Answer: _____

6

A charity collects 327 cans per week for 3 weeks. (a) How many cans were collected in total? (b) If each box holds 100 cans, how many full boxes can be packed, and how many cans are left over?

[4 marks]

Answer: _____

C

Reasoning *explain, justify and check***/9 marks**

3-Digit $\times$ 1-Digit Multiplication · WA4MNAMU2

1

Explain why multiplying a 3-digit number by a 1-digit number sometimes requires regrouping (carrying), while a similar 2-digit multiplication might not.

[2 marks]

2

A student multiplies 234×5 by multiplying each digit separately ($200 \times 5 = 1,000$, $30 \times 5 = 150$, $4 \times 5 = 20$) and adding the results. Explain why this method gives the correct answer.

[2 marks]

3

Explain why you multiply the ones digit first when using the written column method for a 3-digit by 1-digit multiplication.

[2 marks]

4

A student says that multiplying a 3-digit number by a 1-digit number will always give a 3- or 4-digit answer, never more. Is this true? Explain, using the largest possible example, 999×9 .

[3 marks]

D

Challenge *multi-step and problem-solving*

/7 marks

1

A 3-digit number multiplied by 4 gives 848. What is the 3-digit number?

[2 marks]

3-Digit $\times$ 1-Digit Multiplication · WA4MNAMU2**Answer:** _____**2**

A 3-digit number has all three digits the same (e.g. 111, 222, 333). Find all such numbers from 111 to 333 that give no regrouping when multiplied by 3, and give their products.

[2 marks]**Answer:** _____**3**

The product of a 3-digit number and a 1-digit number is 972. Find two different pairs of numbers (3-digit number $\times$ 1-digit number) that give this product.

[3 marks]**Answer:** _____

How did I go?

Fluency ___/16 Core ___/21 Reasoning ___/9 Challenge ___/7 **Total ___/53**

Stuck on a section? Our Year 4 tutors can show you exactly what to practise next. **Book a free trial class at edulift.com.au**