Name & Surname: _____ Class: _____ Date: _____

Long Multiplication Masters

Multiply up to 4 digits with confidence

About 45 minutes Level ★★★☆☆

Long multiplication in 4 steps

To multiply by a 2-digit number, split it into **tens** and **ones**.

- Line up the numbers by **place value**, larger number on top.
- Multiply by the **ones** digit to make the first row.
- Write a **zero** placeholder, then multiply by the tens digit.
- Add both rows to find the **total**.

Task A

/4

Work out each product using short or long multiplication. Show all carries.

1

		3	4	2
×				7

2

	1	2	3	4
×				6

3

		2	4	6
×			3	2

4

	1	4	3	2
×			2	3

Created with LessonDino.com · AI lesson planner with checkable sources

Practise the Basics

Warm up with short multiplication, then try long multiplication.

Task B

/10

Practise short and long multiplication. Remember the placeholder zero.

WARM UP

1 Work out 31 × 3 using **short** multiplication.

Answer: _____

2 Work out 212 × 4 using **short** multiplication.

Answer: _____

3 Work out 43 × 20 using **place value**.

Answer: _____

PRACTISE

4 Work out 246 × 4. Show your **carries**.

Answer: _____

5 Work out 1214 × 5. Show your **carries**.

Answer: _____

6 Work out 36 × 24 using **long** multiplication.

Answer: _____

7 Work out 52 × 31 using **long** multiplication.

Answer: _____

PROBLEM SOLVING

8 A pack holds 24 pencils. A school orders 32 packs. How many **pencils** in total?

Answer: _____

9 A book costs £14. A library buys 27 copies. What is the total **cost**?

Answer: _____

10 A student says 45 × 30 = 1,350. Explain how you **know** they are correct.

Answer: _____

Key words

factor: a number you multiply

partial product: answer to one part of a long multiplication

carry: digit moved to the next column

product: the answer to a multiplication

placeholder: zero that holds the tens place

Created with LessonDino.com · AI lesson planner with checkable sources

Spot the Mistake

Find the wrong step and write the correct answer.

Task C

/4

Find the wrong step in each solution and correct it.



Student A

Work out 346 × 24

1. 346 × 24
2. Row 1: 346 × 4 = 1384
3. Row 2: 346 × 20 = 692
4. 1384 + 692 = 2076

The mistake is in step: _____

What went wrong?

.....

Correct answer: _____



Student B

Work out 1824 × 6

1. 1824 × 6
2. 6 × 4 = 24, write 4 carry 2
3. 6 × 2 = 12, write 2 carry 1
4. 6 × 8 = 48 + 1 = 49, write 9 carry 4
5. 6 × 1 = 6 + 4 = 10, answer 10924

The mistake is in step: _____

What went wrong?

.....

Correct answer: _____

Created with LessonDino.com · AI lesson planner with checkable sources

Tackle Bigger Numbers

Move up to 4-digit numbers and tricky 2-digit problems.

Task D

/10

Show full working for every question. Line up your columns carefully.

WARM UP

1 Work out 42 × 3 using **short** multiplication.

Answer: _____

2 Work out 331 × 6. Show your **carries**.

Answer: _____

3 Work out 53 × 11. Use your **tables** to check.

Answer: _____

PRACTISE

4 Work out 1234 × 8. Show your **carries**.

Answer: _____

5 Work out 47 × 32 using **long** multiplication.

Answer: _____

6 Work out 234 × 46 using **long** multiplication.

Answer: _____

7 Work out 1321 × 23 using **long** multiplication.

Answer: _____

PROBLEM SOLVING

8 Each box holds 125 books. There are 24 boxes. How many **books** in total?

Answer: _____

9 A ticket costs £16. A group buys 45 tickets. What is the total **cost**?

Answer: _____

10 You know 342 × 7 = 2,394. What is 342 × 70? Explain the **link**.

Answer: _____

Created with LessonDino.com · AI lesson planner with checkable sources

Recall and Place Value

Score points with quick recall, then show place value.

Task E

/12

Choose questions to score at least 8 points. Harder questions earn more.

1 point

Work out 7 × 8 from your **tables**.

1 point

Work out 9 × 6 from your **tables**.

1 point

Work out 320 + 480 using **mental** maths.

2 points

Halve 96. What is **half** of 96?

2 points

Work out 40 × 30 using **place value**.

2 points

What is $\frac{1}{4}$ of 96? Give the **fraction** answer.

3 points

A rectangle is 12 cm by 5 cm. What is its **area**?

My score: _____ out of 12 · Target: 8

Created with LessonDino.com · AI lesson planner with checkable sources

Long Multiplication Masters

Task F

/3

Write each digit in the correct place value column.

Number	TTh	Th	H	T	O
8304					
32936					
6070					

TTh = ten thousands · Th = thousands · H = hundreds · T = tens · O = ones

How did I do?

Circle a face for each line.

I can multiply a 4-digit number by a 1-digit number. 

I can use long multiplication for a 2-digit number. 

I can check my work and spot common mistakes. 

Created with LessonDino.com · AI lesson planner with checkable sources

Answer sheet: Long Multiplication Masters

Task A

1. 342 × 7 = 2394
2. 1234 × 6 = 7404
3. 246 × 32 = 7872
4. 1432 × 23 = 32936

Task B

1. 93
2. 848
3. 860
4. 984
5. 6070
6. 864
7. 1612
8. 768 pencils
9. £378
10. They are correct because 45×3=135, so 45×30 is 10 times larger, which is 1,350.

Task C

1. Step 3 is wrong: They multiplied by 2, not 20, and left out the zero placeholder. Row 2 should be 6920. Correct answer: 8304
2. Step 3 is wrong: They forgot to add the carried 2. It should be 12 + 2 = 14, write 4 carry 1, using short multiplication correctly. Correct answer: 10944

Task D

1. 126
2. 1986
3. 583
4. 9872
5. 1504
6. 10764
7. 30383
8. 3000 books
9. £720
10. 23,940 because 70 is 10 times 7, so the product is 10 times larger.

Task E

1. 56
2. 54
3. 800
4. 48
5. 1200
6. 24
7. 60 cm^2

Task F

1. 8304: – | 8 | 3 | 0 | 4
2. 32936: 3 | 2 | 9 | 3 | 6
3. 6070: – | 6 | 0 | 7 | 0

Pictures: Characters: Open Peeps by Pablo Stanley (CC0)

Created with LessonDino.com · AI lesson planner with checkable sources