

Lesson 23 **NUMBER**

Multiplying a 2-digit number by 1 digit: partition and the grid method

CURRICULUM ALIGNMENT

NUM.OPS.3

understand and apply flexibly the four operations; and the relationships between operations.

NUM.PVT.3

explore equivalent numerical expressions of numbers using the base ten system.

INTERACTIVES

Area Model · display, explore

Word Problem · challenge

WHAT THIS LESSON TEACHES

To multiply a two-digit number by one digit, split the two-digit number into its tens and units, multiply each part on its own, then add the two partial products.

→ $23 = 20 + 3$

→ 23×4 : $20 \times 4 = 80$ and $3 \times 4 = 12$, then $80 + 12 = 92$

MODEL THIS ON THE BOARD

GRID METHOD 34×6

- 1 Split 34 into tens and units: $30 + 4$.
- 2 Tens box: $30 \times 6 = 180$.
- 3 Units box: $4 \times 6 = 24$.
- 4 Add the parts: $180 + 24 = 204$.

	$\times 30$	$\times 4$
6	180	24

Total: $180 + 24 = 204$

DISCUSSION STARTER

REFLECT

Did the grid make the parts of the product clearer for you?

ANSWER KEY

a) 78

b) 180

c) 310

Q1: 477 tins

Q2: 136 apples

Q3: 170

Spot:

Cian multiplied the tens **digit** (2) instead of the tens **value** (20). Correct partition: $20 \times 4 = 80$ and $3 \times 4 = 12$, then $80 + 12 = 92$.

EXTENSION SHEET · STRETCH ANSWERS

S1: 1930

S2: 6216

S3: 2816

S4: 2241

S5: 3552

Investigation: Grid-method challenge — open-ended; scan pupils' working for valid solution paths rather than a single answer.