

Lesson 24 **NUMBER****Multiplying a 3-digit number by 1 digit**

WHAT THIS LESSON TEACHES

To multiply a three-digit number by one digit, split the big number into its hundreds, tens and units. Multiply each part on its own, then add the three answers together.

→ 234 splits into $200 + 30 + 4$.

→ For 234×3 : $200 \times 3 = 600$, $30 \times 3 = 90$, $4 \times 3 = 12$, and $600 + 90 + 12 = 702$.

MODEL THIS ON THE BOARD

WORK OUT 243×4 BY SPLITTING

① Split 243 into $200 + 40 + 3$.

② Multiply each part by 4: $200 \times 4 = 800$, $40 \times 4 = 160$, $3 \times 4 = 12$.

③ Add the three parts: $800 + 160 + 12 = 972$.

	$\times 200$	$\times 40$	$\times 3$
4	800	160	12

Total: $800 + 160 + 12 = 972$

DISCUSSION STARTER

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

ANSWER KEY

a) $100+80+2$; 600, 480, 12

b) $300+20+7$; 900, 60, 21

c) $200+40+6$; 1400, 280, 42

Q1: 648

Q2: 948 sliotars

Q3: 369

Q4: 860

Spot: Sean's partial products are right, but he added them incorrectly ($600 + 90 + 12$ is not 602). $600 + 90 = 690$, then $690 + 12 = 702$. The correct answer is 702.

EXTENSION SHEET · STRETCH ANSWERS

S1: 7479

S2: 2485

S3: 6993

S4: 196

S5: 340

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