

# Multiplying multi-digit whole numbers

MODULE 2 · OPERATIONS AND COMPUTATIONAL FLUENCY NUMBER

Multiply by **each digit in turn** using place value, then add the partial products.

- $236 \times 4 = 800 + 120 + 24 = 944$ .
- Estimate first:  $236 \times 4 \approx 240 \times 4 = 960$ .

	$\times 30$	$\times 8$
6	180	48

Total:  $180 + 48 =$

## MULTIPLY $38 \times 6$ WITH THE AREA MODEL

	$\times 30$	$\times 8$
6	180	48

Total:  $180 + 48 =$

- Split 38 into  $30 + 8$ .
- $30 \times 6 = 180$ ;  $8 \times 6 = 48$ .
- Add the partial products:  $180 + 48 = 228$ .

### WARM-UP

- a.  $84 \times 5 =$        b.  $68 \times 5 =$        c.  $28 \times 7 =$        d.  $28 \times 9 =$

### PRACTICE

- Tadhg saves **€249** from his pocket money each year. After **9** years of saving, how much will he have put away in total?
- The local hurling club sold **251** match programmes at each of the **7** home games this season. How many programmes did the club sell in total?

### CHALLENGE

- The school library has **4190** books on its shelves. The principal orders the same number of books for each of the **7** primary schools in the parish. How many books are needed in total?
- 5th class are making paper bunting flags to decorate the classroom for World Book Day. Each of the **9** strings of bunting has **3386 mm** of ribbon along the top. What is the total length of ribbon needed for all **9** strings?