

ESTIMATE THEN MULTIPLY ON SQUARED PAPER

- 1 Round 412 to 400 and 23 to 20 then multiply 400×20 to get the estimate of 8,000.
- 2 Write $412 \times 3 = 1,236$ as the first row.
- 3 Write $412 \times 20 = 8,240$ as the second row shifted one place left.
- 4 Add the rows to get the exact total and compare it with the estimate.

 WARM-UP

On the GAA scoreboard grids and estimate line, show each product pair.

	$\times 40$	$\times 3$
20	800	60
6	240	18

1. Write the rounded estimate and the working rows for 384×27
2. Write the rounded estimate and the working rows for 478×36
3. Write the rounded estimate and the working rows for 926×47

 PRACTICE

- 1 A GAA team scored **531** points over **27** matches. Estimate first by rounding then work out the exact total points.
- 2 A hurler scored **365** points across **24** games. Round to friendly numbers for an estimate then multiply exactly.
- 3 The club totalled **693** points in **48** matches. Make a rounded estimate first then complete the long multiplication.
- 4 A county side scored **815** points in **29** fixtures. Estimate by rounding then do the full working to check.
- 5 Over **52** training sessions the squad scored **364** points in total. Round for an estimate then multiply row by row.

ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- a. Rounding 48×31 to 50×30 gives the exact answer. ☐
- b. A good estimate helps spot if a place-value slip has made the answer ten times too small. ☐
- c. Both factors are rounded up when estimating a product. ☐
- d. After estimating you still need to do the full long multiplication to find the exact total. ☐