



ANCHOR CHART · GRADE 5 · 5.NBT.B.7

Multiplying Decimals

$$4 \times 1.42$$

1 Break Apart by Place

$$1.42 = 1 + 0.4 + 0.02$$

$$4 \times 1 = 4 \quad 4 \times 0.4 = 1.6 \quad 4 \times 0.02 = 0.08$$

$$4 + 1.6 + 0.08 = 5.68$$

Four groups of each place, then add - same idea as whole numbers.

2 Area Model

	1	0.4	0.02
4	4×1 4	4×0.4 1.6	4×0.02 0.08
	$4 + 1.6 + 0.08 = 5.68$		

Each place gets its own room - the tiny pieces stay visible.

3 The Algorithm, to Check

$$\begin{array}{r} 1.42 \\ \times 4 \\ \hline 5.68 \end{array}$$

Multiply as if it were $142 \times 4 = 568$.

1.42 has **two** decimal places, so the product gets **two**: 5.68.

Count decimal places at the end - the model explains **why** it lands there.

4 Estimate to Catch Mistakes

1.42 is close to $1\frac{1}{2} \rightarrow 4 \times 1\frac{1}{2} = 6$

5.68 is near 6 ✓

A misplaced point screams: 56.8 or 0.568 are nowhere near 6.

The estimate is the answer's bodyguard.