



ANCHOR CHART · GRADE 5 · 5.NBT.A.2

Powers of Ten

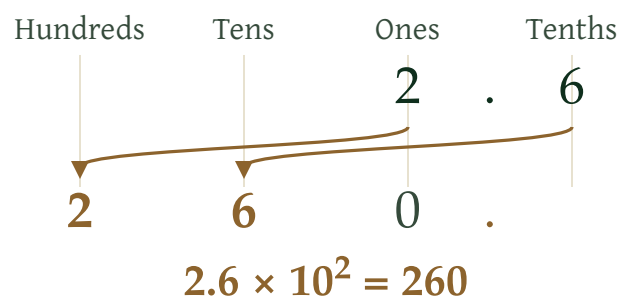
An exponent counts the tens. Each ten moves every digit one place, and the place sets the value.

1 What the Exponent Counts

Power	Tens multiplied	Value
10^1	10	10
10^2	10×10	100
10^3	$10 \times 10 \times 10$	1,000
10^4	$10 \times 10 \times 10 \times 10$	10,000

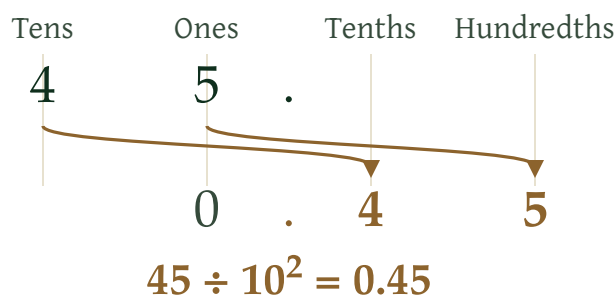
The exponent counts **tens multiplied**, not the answer. Three tens make 1,000, never 30. The zeros match the exponent.

2 Multiply: Digits Move Left



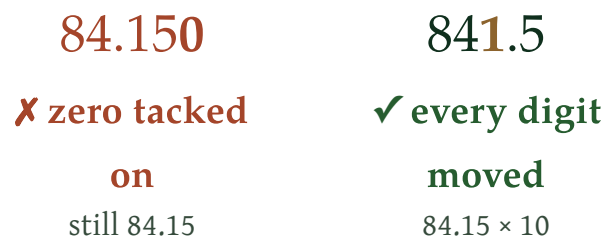
Two tens make every digit worth a hundred times more, so each moves **two places left**. A zero fills the ones place. The point only looks like it hopped.

3 Divide: Digits Move Right



Dividing by two tens makes every digit worth a hundredth as much, so each moves **two places right**. The zero in the ones place says there are no ones. It is not decoration.

4 A Zero Is Not a Ten



Adding a zero opens a new ones place on a **whole** number. After a decimal it fills a place that was already empty, so **nothing grows**. Ask what each digit is worth.