

# Multiplying and dividing decimals by 10, 100, 1000

## WHAT THIS LESSON TEACHES

When you multiply a decimal by 10, 100 or 1000 every digit moves left one, two or three columns; when you divide, every digit moves the same number of columns right. The decimal point stays fixed.

$$\rightarrow 4 \times 10 = 34$$

$$\rightarrow 6 \times 100 = 60$$

## MODEL THIS ON THE BOARD

### MULTIPLY 0.3 BY 1000

- 1 Write 0.3 on the place-value chart with 3 in the tenths column.
- 2 Move each digit three columns left: the 3 lands in the hundreds column.
- 3 A zero fills the units column so the answer is 300.

## ANSWER KEY

**Scaffold:** visual check on the page

**Q1:** 24 cent

**Q2:** 40 cent

**Q3:** €0.45

**Q4:** 7 cent

**a)** Always — Multiplying by 10 always moves every digit one column left.

**b)** Never — The decimal point never moves; the digits move right instead.

**c)** Sometimes — It depends on how many decimal places the number has.

**d)** Always — Every digit moves exactly one column left.

## EXTENSION SHEET · STRETCH ANSWERS

**S1:** 1909.4

**S2:** 761.73

**S3:** 19422

**S4:** 2428

**S5:** 952.2