

Converting fractions to decimals

WHAT THIS LESSON TEACHES

A fraction is a division waiting to happen: the top number divided by the bottom number. So $\frac{3}{4}$ means 3 divided by 4.

→ $\frac{3}{4} = 3$ divided by $4 = 0.75$

→ $\frac{1}{8} = 0.125$ (stops after three places)

MODEL THIS ON THE BOARD

CONVERT $\frac{3}{4}$ TO A DECIMAL

- ① Divide the top number by the bottom number: 3 divided by 4.
- ② 00 divided by 4 gives 0.75 exactly.

ANSWER KEY

Scaffold: visual check on the page

Q1: 0.5

Q2: 0.375

Q3: 0.7

Q4: 0.8

Q5: 0.333...

Q6: 0.625

a) Always — 3 divided by 4 gives exactly 0.75.

b) Always — 1 divided by 3 gives 0.333... which repeats.

c) Never — 1 divided by 8 gives 0.125 which stops.

d) Always — 4 factors into 2×2 so it terminates.

EXTENSION SHEET · STRETCH ANSWERS

S1: $75\% = \frac{3}{4} = 0.75$

S2: $0.75 = \frac{3}{4} = 75\%$

S3: $\frac{3}{5} = 0.6 = 60\%$

S4: $75\% = \frac{3}{4} = 0.75$

S5: $20\% = \frac{1}{5} = 0.2$