

Maths - Year 6

Calculating 8: Converting fractions and decimals

Key Vocabulary

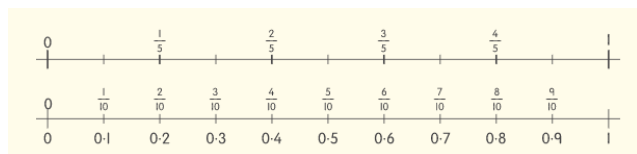
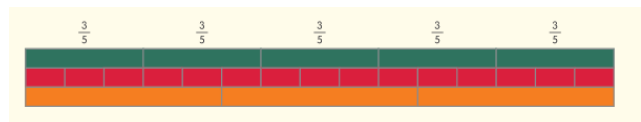
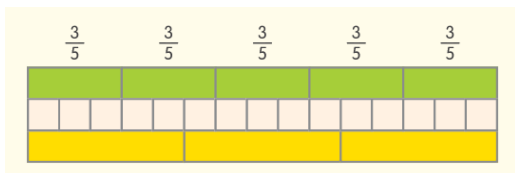
Proper fraction	A fraction where the numerator is smaller than the denominator.
Numerator	Upper number of a fraction; shows how many of this kind of fraction.
Denominator	Lower number of a fraction; gives the fraction its name.
Decimal	A number that has a whole number and a fractional part separated by a decimal point e.g. 34.7
Terminating decimal	A decimal number that comes to an end e.g. 34.72.
Recurring/repeating decimal	A decimal number that is infinite e.g. 3.3333333

Mathematical Skills

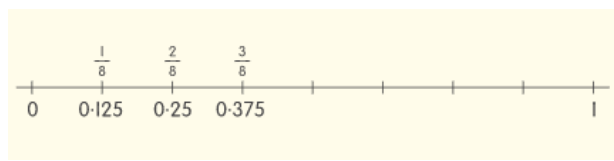
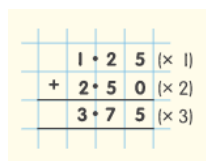
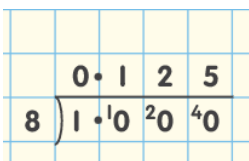
- Demonstrate and explain an understanding of fractions as the result of dividing a whole into equal parts.
- Notice the relationship of equivalence between, e.g. fifths and tenths, and use this to identify decimal equivalents.
- Recognise that the decimal equivalent of a common fraction can be calculated by dividing the numerator by the denominator, e.g. $\frac{2}{5} = 2 \div 5$.
- Recognise that the decimal equivalent of a non-unit fraction (e.g. $\frac{2}{5}$) can be calculated by multiplying the unit fraction decimal equivalent, e.g. as $\frac{1}{5} = 0.2$ then $\frac{2}{5} = 0.2 \times 2$.
- Make sensible conjectures about decimal fraction equivalents of common fractions.
- Notice that the decimal equivalents of some common fractions contain recurring patterns of digits.
- Use efficient dividing strategies.
- Demonstrate an understanding of place value when calculating.
- Recall an increasing range of common fraction and decimal fraction equivalents.

Mathematical Methods

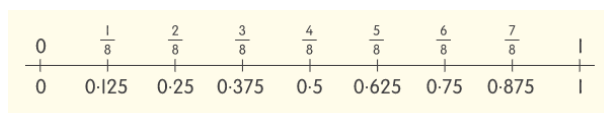
- Exploring the relationship between common fractions and dividing e.g. $3 \div 5 = \frac{3}{5}$



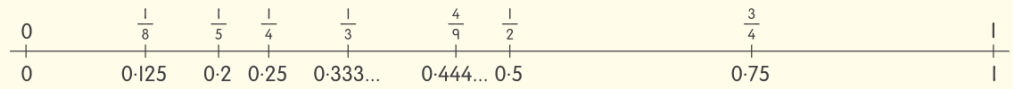
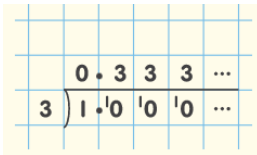
- Making connections between fractions and decimals - fifths.



- Making connections between fractions and decimals—eighths



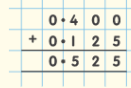
- Making connections between fractions and decimals—recurring decimals.



- Adding fraction and decimal equivalents e.g. $\frac{2}{5} + 0.125$.

$$\frac{2}{5} = \frac{4}{10} = 0.4$$

Ones	tenths	hundredths	thousandths
0	4	0	0
0	1	2	5
0	5	2	5



Can you..?

- Find the equivalences to complete the table.

Fraction	Percentage	Decimal
$\frac{1}{8}$		
	66.67%	
		0.8

- Convert the following fractions into decimals to three decimal places.

$$\frac{3}{7}$$

$$\frac{5}{9}$$

$$\frac{2}{3}$$