



Fractions, decimals and percentages



Lesson sequence

- Decimals up to 2 decimal places
- Equivalent fractions and decimals (tenths and hundredths)
- Equivalent fractions and decimals
- Thousandths as fractions
- Thousandths as decimals
- Thousandths on a place value chart
- Order and compare decimals
- Round decimals (nearest whole number and 1 decimal place)
- Understand percentages
- Percentages as fractions and decimals
- Equivalent fractions, decimals and percentages

Vocabulary

- Multiply
- Rounding
- Fraction wall
- Place value
- Fraction
- Quantity
- Percentages
- Thousandths
- Integer
- Tenths
- Hundredths
- Unit fraction
- Non-unit fraction

Sticky learning

New Knowledge

- To know that per cent relates to "number of parts per hundred"
- To recognise the per cent symbol (%)
- To know that mixed numbers are a whole number and a fraction
- To know that percentages, fractions and decimals are connected (for example, 100% represents a whole quantity, and 1% is $1/100$, 50% is $50/100$, 25% is $25/100$)

New Skills

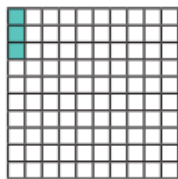
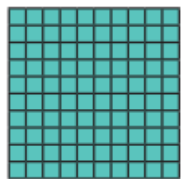
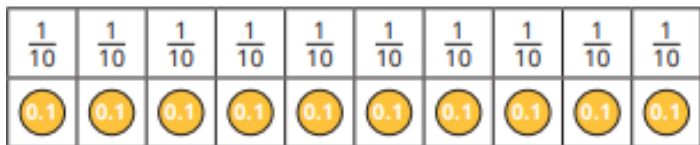
- To use thousandths and relate them to tenths, hundredths and decimal equivalents
- To write percentages as a fraction with denominator 100 as a decimal fraction
- To count in decimals and fractions, bridging zero
- To interpret non-integer answers to division by expressing results in different ways according to the context, as fractions, as decimals or by rounding
- To use thousandths and relate them to tenths, hundredths and decimal equivalents
- Round decimals with two decimal places to the nearest whole number and to one decimal place

Concept Links/Prior Knowledge

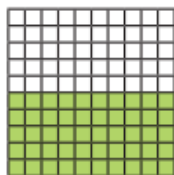
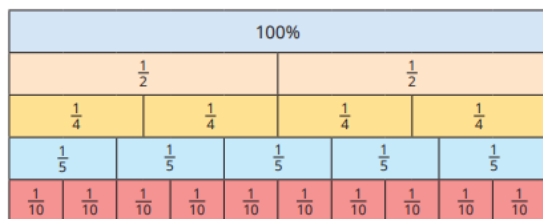
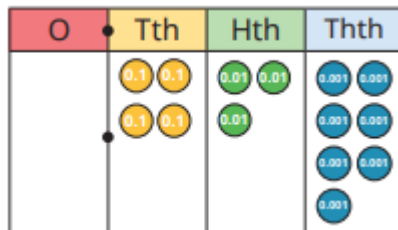
- Converting fractions into decimals
- Order and compare decimals
- Round decimals numbers to the nearest whole and 1 decimal place
- Know the value of digits in decimal numbers



Pictorial representations



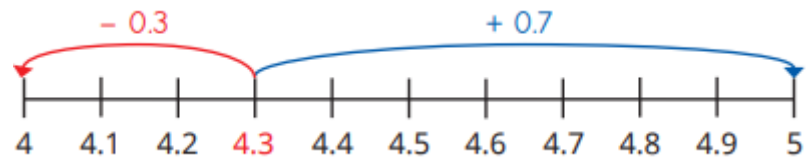
1.3



$\frac{50}{100}$ is shaded.
0.5 is shaded.
50% is shaded.

Abstract Representations

Rounding with a number line



Fractions as decimals

Fraction

$$\frac{9}{10}$$

Decimal

$$0.9$$

Fractions decimals percentages

$$\frac{50}{100} = \frac{5}{10} = \frac{1}{2} = 50\%$$