## Fractions, decimals and percentages converter

## Fractions, decimals and percentages converter - Overview

This file enables you to explore the relationships between improper fractions, mixed numbers, decimals and percentages. You can choose which format you start with and then use questioning to illicit the equivalents, encouraging the pupils to explain their methods and understanding.

## Fractions, decimals and percentages converter - How to use

Click on the white cells to hide and reveal their contents

Use the tabs to choose whether you start with a mixed number, improper fraction, decimal or percentage


Use the sliders to change the starting number (When you start with the decimal or percentage you also choose what denominator is used for the improper fraction and the mixed number and these will only be shown if they are) Fractions have a slider for each separate part


## Fractions, decimals and percentages converter - Key questions and prompts

- What percentage is equivalent to 0.75 ?
- How do you convert a fraction to a decimal?
- What will happen to the numerator if I change the denominator to 4 ?
- What will happen to the numerator if I double the denominator?
- If I want the numerator to be 5 , what will I need to change the denominator to?
- If the denominator of the mixed number is 20 , what is the highest numerator that you can have?
- Are there some key facts that it is useful to remember?
- Which fractions are tricky to convert?
- If the decimal is 0.2 why can't the denominator of the fraction be 15 ?
- What decimal will give a fraction that lies between $\frac{4}{10}$ and $\frac{8}{10}$ ? Tell me some others.
- Start with the mixed number $1 \frac{3}{4}$. What will happen to the mixed number if $I$ change this to $2 \frac{3}{4} \ldots 3 \frac{3}{4}$ etc?
- How many different fractions can we find that are equivalent to $\frac{4}{10}$ ?
- If we start with $25 \%$, what happens to the fraction as I change the denominator?

