Tutorial 13　　Fractions

Create three fraction strips by clicking on the [icon] icon.
You can display a maximum of five strips at one time.

Set the denominator in each fraction by selecting the 'up' arrow.

Use this to display one strip divided into three sections, one strip divided into six sections and one strip divided into nine sections as shown below.
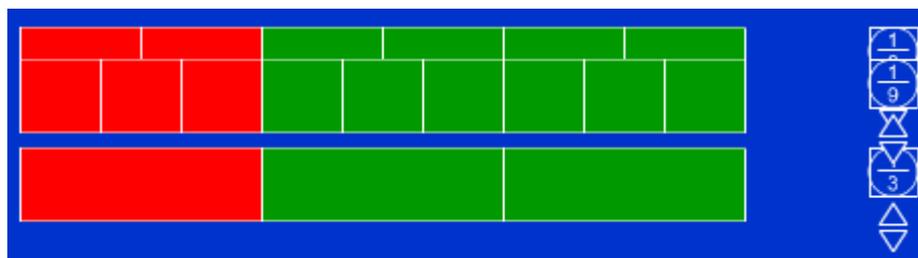
Click on the strips on the screen to colour in yellow, a third on the first strip, two sixths on the second and three ninths on the third strip.
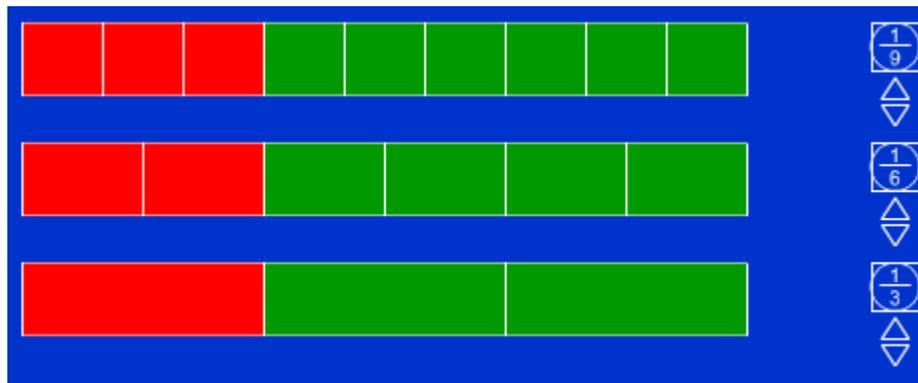
Q: Do these three strips represent equivalent fractions?

Overlap the strips to check to show this equivalence by clicking and dragging the fraction icons up and down. This will move the whole fraction strip as shown below.

This shows that the same lengths are coloured yellow and the fractions are equivalent. Return them to their original positions.

Q: What would each fraction be as a decimal?

Click on . A set of four letters will appear alongside each fraction. Click on the 'd' option to reveal the decimal fraction to three decimal places.

Note that the 'p' icon reveals the percentage; the 'f' displays the fraction to the left of the strip; and the 'r' displays the ratio. Ratio is always displayed *yellow : green* on this ITP.

Reset the Fractions ITP by clicking on the icon twice, and remove the fdrp boxes.

Display a fraction strip of sixths. Colour two sections in yellow as shown below.

Q: If the whole of this strip represents 18 what is the value of the yellow section?

You can use the interactive whiteboard tools to annotate the screen to show that as one section must represent 3, two sections represent 6.
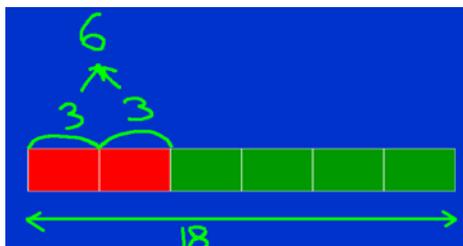
Reset the Fractions ITP and display a strip with 21 sections.
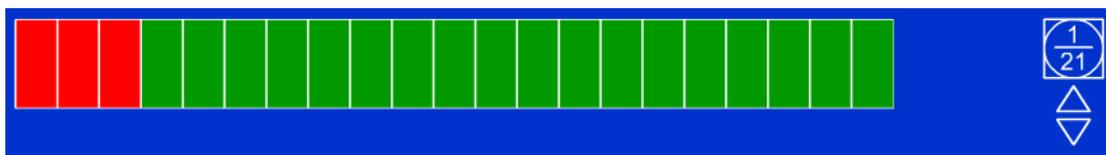
Colour three sections yellow.

Q: If this strip represents the fraction $\frac{3}{21}$ what fraction could it be equivalent to?

Display and move a blank fraction strip to above the strip representing $\frac{3}{21}$. Increase the denominator on this new strip until its sections coincide with the block of three yellow sections to establish $\frac{3}{21}$ and $\frac{1}{7}$ are equivalent fractions.

Use the Fractions ITP to explore equivalence between fractions, decimals and percentages and to demonstrate how to calculate fractions and percentages of given amounts. Explore how the ITP can be used to set up and solve ratio and proportion problems.