

Maths - Year 5

Calculating 15: Calculating with fractions

Key Vocabulary

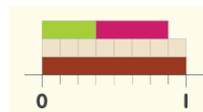
Proper fraction	A fraction where the numerator is smaller than the denominator.
Improper fraction	A fraction where the numerator is bigger than the denominator.
Mixed number	A number written as a whole number and a fraction.
Numerator	The upper number of a fraction.
Denominator	The lower number of a fraction.
Common denominator	Where a group of fractions share the same denominator.

Mathematical Skills

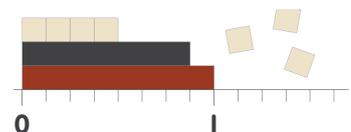
- Add and subtract fractions with the same denominator.
- Become familiar with the way that equivalent fractions can be used to add or subtract fractions whose denominators are multiples of the same number e.g. $\frac{1}{2} + \frac{1}{4}$.
- Become fluent at adding and subtracting fractions, including where the answer is a mixed number.
- Multiply proper fractions and mixed numbers by whole numbers.
- Make connections between multiplying a fraction, using a fraction as an operator and division.

Mathematical Methods

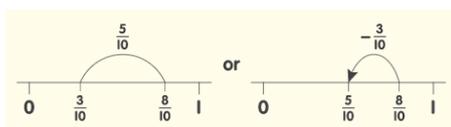
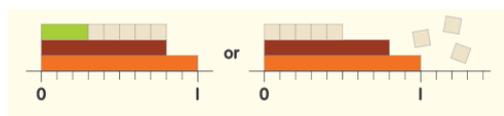
- Adding fractions with the same denominator e.g. $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$



- Subtracting fractions with the same denominator e.g. $\frac{7}{8} - \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$

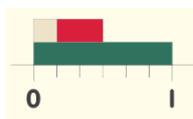


- Adding and subtracting fractions on a number line e.g. $\frac{8}{10} - \frac{3}{10}$



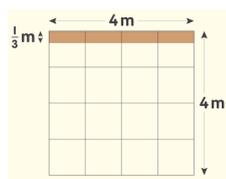
- Adding and subtracting fractions whose denominators are multiples of the same number.

E.g. $\frac{1}{6} + \frac{1}{3} = \frac{1}{6} + \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$



- Multiplying a proper fraction by a whole number.

E.g. $\frac{1}{3} \times 4$



$\frac{1}{3} \times 4 = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = \frac{4}{3}$ or $1\frac{1}{3}$

- Multiplying a mixed number by a whole number e.g. 4 children are given $1\frac{1}{2}$ apples each. How many apples are there altogether?

$1\frac{1}{2} \times 4$



$1\frac{1}{2}$ apples $\times 4 = 6$ apples

Can you..?

- Claire eats $\frac{5}{8}$ of a tray of flapjacks. Tim eats $\frac{2}{8}$. What fraction of the tray has been eaten and what fraction is left?

Calculate $\frac{5}{8} + \frac{2}{8}$

- Use a number line to solve $\frac{12}{5} - \frac{3}{5}$

- Calculate $\frac{3}{4} - \frac{5}{12}$

- Work out how much of Emily's patch is taken up by lettuces.

