

Key Vocabulary

Equivalent Fractions

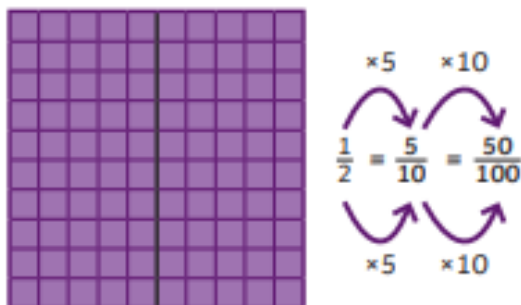
Compare and Order Fractions

numerator

To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.

We can compare and order fractions by using common denominators.

denominator



unit fraction

non-unit fraction

whole

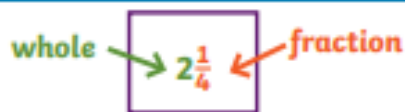
equivalent

Mixed Numbers

Improper Fractions

mixed number

Mixed numbers contain a whole number and a fraction.



An improper fraction has a numerator which is greater than or equal to the denominator.

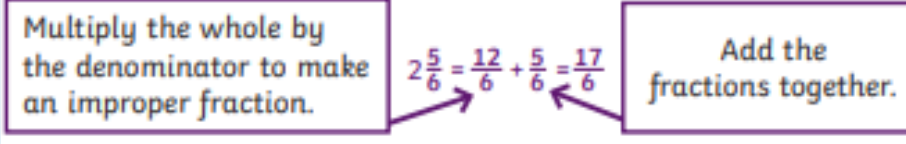
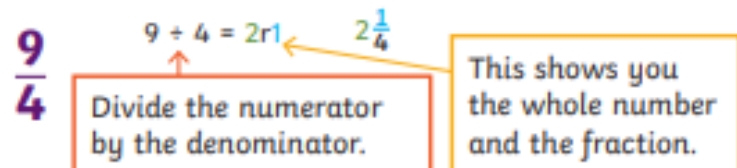
$\frac{5}{3}$

improper fraction

Convert an Improper Fraction to a Mixed Number

Convert a Mixed Number to an Improper Fraction

simplest form



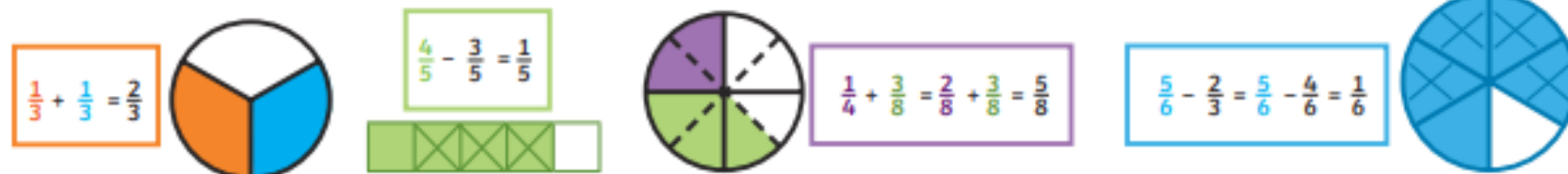
multiple

common denominator

Adding and Subtracting Fractions

common numerator

To add or subtract fractions with denominators that are multiples of the same number, we must change one fraction to have the same denominator.



## Fractions

## Knowledge Organiser

### Add Fractions Where the Total is Greater Than 1

$$\frac{1}{2} + \frac{3}{4} + \frac{5}{8} = \frac{4}{8} + \frac{6}{8} + \frac{5}{8} = \frac{15}{8} = 1\frac{7}{8}$$



### Add Mixed Numbers

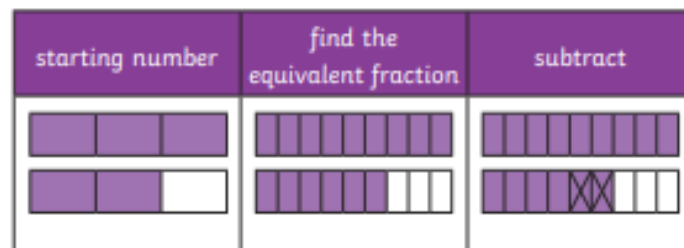
$$1\frac{1}{4} + \frac{3}{8} = 1\frac{2}{8} + \frac{3}{8} = 1 + \frac{5}{8} = 1\frac{5}{8}$$

$$1\frac{1}{4} + \frac{3}{8} = \frac{5}{4} + \frac{3}{8} = \frac{10}{8} + \frac{3}{8} = \frac{13}{8} = 1\frac{5}{8}$$



### Subtract from a Mixed Number

$$1\frac{2}{3} - \frac{2}{9} = 1\frac{6}{9} - \frac{2}{9} = 1\frac{4}{9}$$



### Multiply Unit Fractions by an Integer

$$\frac{1}{3} \times 5 = \frac{5}{3}$$



### Multiply Non-Unit Fractions by an Integer

$$2 \times \frac{4}{9} = \frac{8}{9}$$



### Subtract Two Mixed Numbers

$$2\frac{3}{4} - 1\frac{5}{8} = 1\frac{1}{8}$$



$$2 - 1 = 1$$

$$\frac{3}{4} - \frac{5}{8} = \frac{1}{8}$$

### Multiply Mixed Numbers by Integers

Convert to an improper fraction and multiply the numerator by the integer.

$$2\frac{1}{4} \times 2 = \frac{9}{4} \times 2 = \frac{18}{4} = 4\frac{2}{4} = 4\frac{1}{2}$$



Use repeated addition.

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

### Subtract from a Mixed Number - Breaking the Whole

$$2\frac{1}{4} - \frac{3}{8} = 2\frac{2}{8} - \frac{3}{8} = 1\frac{10}{8} - \frac{3}{8} = 1\frac{7}{8}$$

