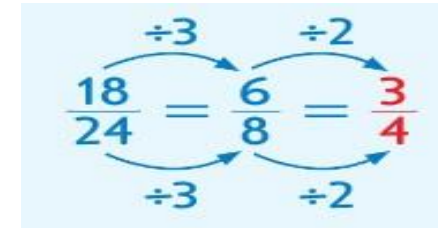




26 - Fractions

Simplifying fractions:

Find a number that is a factor of the numerator and the denominator. Divide both numbers by that factor.
 When the only common factor of the numerator and the denominator is 1, you know you have simplified far enough.
 If you find the highest common factor you can completely simplify in 1 step.



Equivalent fractions:

You need to work out what you have to multiply the one number by to get the other in the equivalent fraction.
 In this example you need to multiply 4 by 4 to get 16 so you need to multiply 1 by 4 to get the missing numerator.

$$\frac{1}{4} = \frac{?}{16}$$

X 4

Mixed numbers to improper fractions and vice versa:

Mixed numbers are things like $3\frac{1}{3}$, with an integer part and a fraction part. **Improper fractions** are ones where the top number is larger than the bottom number. You need to be able to convert between the two.

EXAMPLES:

1. Write $4\frac{2}{3}$ as an improper fraction.

1) Think of the **mixed number** as an **addition**:

$$4\frac{2}{3} = 4 + \frac{2}{3}$$

2) Turn the **integer part** into a **fraction**:

$$4 + \frac{2}{3} = \frac{12}{3} + \frac{2}{3} = \frac{12+2}{3} = \frac{14}{3}$$

2. Write $\frac{31}{4}$ as a mixed number.

Divide the top number by the bottom.

1) The **answer** gives the **whole number part**.

2) The **remainder** goes **on top** of the fraction.

$$31 \div 4 = 7 \text{ remainder } 3 \text{ so } \frac{31}{4} = 7\frac{3}{4}$$

Linked Prior Topics
 HCF/LCM
 Multiplication facts
 Division Facts

Vocabulary
 Highest common factor, Lowest common multiple, denominator, numerator, improper fraction, mixed number, equivalent,

Linked Future Topics
 + - x and ÷ fractions
 Calculate fractions of quantities
 Recurring decimals to fractions