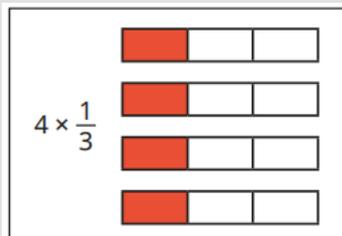


# Fractions: Multiplying and Dividing Fractions Knowledge Organiser

## Key Vocabulary

Compare	To look for similarities and differences.
Denominator	The bottom number of a fraction.
Fraction	A representation of a part of a whole.
Highest Common Factor	The highest factor two numbers have in common.
Integer	A number that is not a fraction, a whole number.
Lowest Common Multiple	The lowest multiples two numbers share.
Numerator	The top number in a fraction.
Order	First, second, third.....
Simplify	Reducing to a simpler form.

## Worked Examples



$\frac{4}{3}$

## Key Information

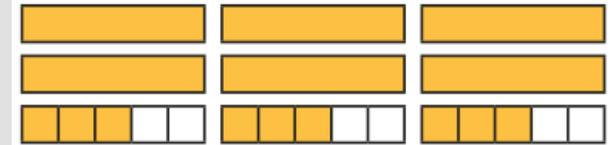
- 1 Improper fractions are where the numerator is bigger than the denominator.
- 2 Mixed numbers are where fractions and integers are used together to represent one whole and a part whole.
- 3 Multiplying fractions by an integer is have  $\times$  amount of the fraction.
- 4 Multiplying fractions by fractions means you multiply the numerators together and then the denominators together.
- 5 When dividing fractions, you are sharing the fraction by the divisor. The numerator and denominator get larger.

## Prior Knowledge

- Y1 Recognise and name a half and quarter of a shape, object or quantity.
- Y2 Know the fractions  $\frac{1}{3}$   $\frac{1}{4}$   $\frac{2}{4}$   $\frac{3}{4}$  and their equivalence.
- Y3 Unit fractions have 1 as the numerator and non unit fractions have a number greater than one as their numerator.
- Y4 Fractions with the same denominator can be added together by adding the numerators.
- Y5 Fractions can be compared and ordered depending on their denominator which gives their size value.

## Worked Examples

$$2 \frac{3}{5} \times 3$$



$$3 \times 2 = 6$$

$$\frac{3}{5} \times 3 = \frac{9}{5} = 1 \frac{4}{5}$$

$$6 + 1 = 7 \quad 7 \frac{4}{5}$$

$$\frac{1}{2} \times \frac{1}{3} = 1 \times 1 = 1$$

$$2 \times 3 = 6$$

Therefore  $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

Teddy divides one third into 2 equal parts.



Each part is worth  $\frac{1}{6}$   
so  $\frac{1}{3} \div 2 = \frac{1}{6}$

