

## Multiplying Fractions by a Whole Number

Multiplying fractions is actually easier than adding or subtracting as there are fewer steps. We use this if we want to avoid repeated addition (adding the same fraction many times). The trick is to remember that the whole number can be written as a fraction where the denominator is one (1).

In other words:  $5 = \frac{5}{1}$  or  $8 = \frac{8}{1}$

Once you have converted the whole number into a fraction, multiplication involves multiplying the two numerators together and then doing the same to the denominators. Finally, you will need to reduce/ simplify, if possible.

*Examples:*

$$\begin{aligned} \text{a) } 5 \times \frac{1}{4} &= \frac{5}{1} \times \frac{1}{4} \\ &= \frac{5 \times 1}{1 \times 4} = \frac{5}{4} = 1\frac{1}{4} \end{aligned}$$

$$\begin{aligned} \text{b) } \frac{3}{9} \times 8 &= \frac{3}{9} \times \frac{8}{1} \\ &= \frac{24}{9} \\ &= 2\frac{6}{9} \\ &= 2\frac{2}{3} \end{aligned}$$