

## Fractions

### How do I multiply a mixed number with a common fraction?

- The mixed number must be changed to an improper fraction.

#### Example

Multiply:  $3\frac{1}{2} \times \frac{1}{8} = ?$

*This mixed number must be changed to an improper fraction.*

*The mixed number  $3\frac{1}{2}$  has been changed to  $7/2$ .*

$$\begin{aligned} & \rightarrow 3\frac{1}{2} \times \frac{1}{8} = \\ & \rightarrow \frac{7}{2} \times \frac{1}{8} = \\ & \frac{7 \times 1}{2 \times 8} = \boxed{\frac{7}{16}} \end{aligned}$$

Knowing this idea helps when you multiply two mixed numbers together.

#### Example

Multiply:  $5\frac{1}{4} \times 2\frac{1}{2} =$

***Both** mixed numbers must be changed to improper fraction form*

*$5\frac{1}{4}$  has been changed to  $21/4$  and  $2\frac{1}{2}$  has been changed to  $5/2$ .*

$$\begin{aligned} & \rightarrow 5\frac{1}{4} \times 2\frac{1}{2} = \\ & \rightarrow \frac{21}{4} \times \frac{5}{2} = \\ & \frac{21 \times 5}{4 \times 2} = \frac{105}{8} = \boxed{13\frac{1}{8}} \end{aligned}$$