

Lesson 2 Week 5

Can I understand addition and subtraction with the same denominator?

Fast Five

$\frac{8}{5}$ as a mixed number

$$19 \times 24 =$$

$$1\frac{3}{4}$$

$$56 \times 100 =$$

$$6454 - 3456 =$$

Fast Five Answers

$$\frac{8}{5} \text{ as a mixed number} = 1 \frac{3}{5}$$

$$19 \times 24 = 456$$

$$1 \frac{3}{4} \text{ as an improper fraction} = \frac{7}{4}$$

$$56 \times 100 =$$

$$5600$$

$$6454 - 3456 = 2998$$

Adding or subtracting fractions

We can only add or subtract fractions when they have the same denominators.

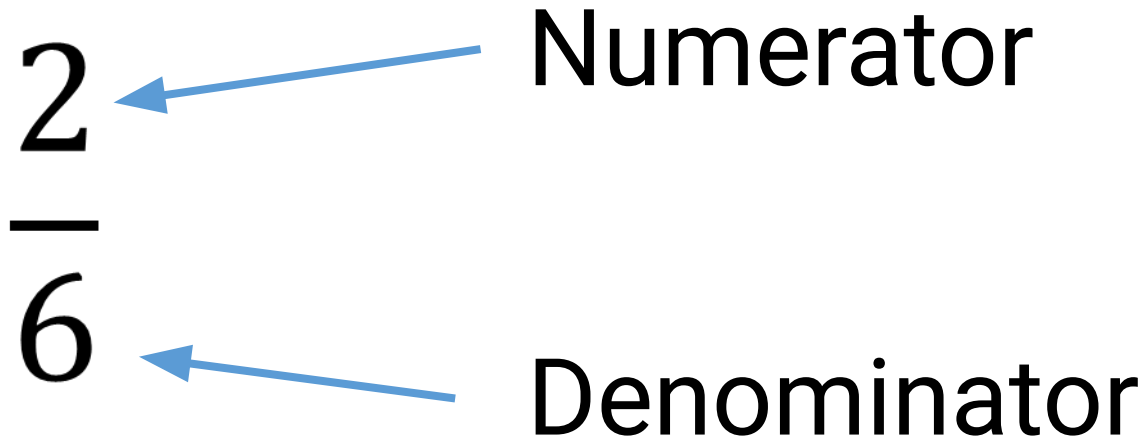
If they are not the same, then we cannot do either function.

If they are the same we simply have to add/subtract the numerators.

$$\frac{2}{6}$$

Numerator

Denominator

A diagram showing the fraction 2/6. The number 2 is positioned above a horizontal line, and the number 6 is positioned below it. A blue arrow points from the word "Numerator" to the number 2. Another blue arrow points from the word "Denominator" to the number 6.

Example

$$\frac{2}{6} + \frac{1}{6} =$$

Do these fractions have the same denominator? **Yes**, so the sum can be done straight away.

$$\frac{2}{6} + \frac{1}{6} = \frac{2+1}{6} = \frac{3}{6}$$

The numerators are added

The denominators remain the same

Example

$$\frac{2}{8} + \frac{3}{8} =$$

Do they have the same denominator? **Yes**, so the sum can be done straight away.

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



Numerators are added



Denominators stay the same

Have a go

$$\frac{1}{5} + \frac{2}{5} =$$

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

Numerators are added

Denominator remains
the same

Subtraction – the method remains the same

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

Numerators are subtracted

Denominator remains the same

Have a go

$$\frac{6}{7} - \frac{3}{7} =$$

Answer

$$\frac{6}{7} - \frac{3}{7} = \frac{6 - 3}{7} = \frac{3}{7}$$

Subtract the
numerators

Denominator remains the
same

Try these

$$\frac{4}{6} + \frac{1}{6} =$$

$$\frac{4}{6} - \frac{1}{6} =$$

Answers

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

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