

ADDING FRACTIONS

Adding fractions is the operation of adding two or more different fractions.

Adding fractions is common in many everyday events, such as making a recipe and measuring wood.

In order to add fractions, the fractions must have the same denominator. If the fractions do not have the same denominator, a **common denominator** must be found before the fractions can be added. Once the fractions have the same denominator, the fractions are added by adding the numerators only, and leaving the denominators the same.

How to use adding fractions:

- First check to see if the fractions have the same denominator. If the fractions do not have the same denominator, you will need to find a common denominator.

Example:

- If the denominators are not the same, you will need to find a **common denominator**. To find a common denominator, look to see if one denominator is a multiple of the other. If so, multiply the smaller fraction, both numerator and denominator, by the number that will make the common denominator.

Example: $5/12 + 1/6 \rightarrow 5/12 + \underline{2/12}$ (multiplied by two) = $7/12$

- Another way to find a common denominator is to multiply the denominators together and use the product as the new denominator. Do not forget to multiply the numerators by the correct number.

Example: $1/4 + 2/5 \rightarrow 5/20 + 8/20 = 13/20$

- Sometimes when adding fractions, the resulting numerator will be larger than the denominator, this is called an **improper fraction**.



Please login or register to download the printable version of this study guide.

www.newpathlearning.com

- The improper fraction should be changed into a **mixed number**, a number that has whole number and fractions. To change from an improper fraction to a mixed number, see how many times the denominator can be subtracted from the numerator. This will give the whole number. The number that is left after subtracting will be the new numerator and the denominator stays the same. Once the mixed number is found, be sure to **simplify the fraction into lowest terms**.

Example

$$54/48 \rightarrow 1 \frac{6}{48} \rightarrow 1 \frac{1}{8}$$

Try this!

Add the following fractions:

$$2/7 + 3/7 =$$

$$4/9 + 1/9 =$$



PREVIEW

Please login or register to download the printable version of this study guide.

www.newpathlearning.com

$$2/3 + 9/10 =$$

$$6/7 + 4/5 =$$