

# Fractions



**Year 6**

$\frac{4}{7} + \frac{1}{7} = \frac{5}{7}$   
I can't describe the sum!  
Find a common denominator.  
 $\frac{4}{7} + \frac{1}{7} = \frac{5}{7}$   
I can add fractions with the same denominator.

$\frac{4}{7} - \frac{1}{7} = \frac{3}{7}$   
How can I subtract  $\frac{1}{7}$ ?  
Find a common denominator.  
 $\frac{4}{7} - \frac{1}{7} = \frac{3}{7}$   
I can subtract fractions with the same denominator.

$\frac{1}{2} \times 3 = \frac{3}{2}$   
 $\frac{1}{2} \times 3 = \frac{3}{2}$   
How can I subtract  $\frac{3}{4}$ ?  
 $\frac{1}{2} - \frac{3}{4} = \frac{2}{4} - \frac{3}{4} = -\frac{1}{4}$   
I can subtract fractions with the same denominator.

$\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$   
Add the fractions by finding a common denominator.  
 $\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$   
I can add fractions with the same denominator.

$\frac{1}{2} - \frac{1}{4} = \frac{2}{4} - \frac{1}{4} = \frac{1}{4}$   
I can subtract fractions with the same denominator.

$\frac{1}{2} \times 3 = \frac{3}{2}$   
On a number line.

**Simplify**  $\frac{7}{14}$   
7 and 14 have the common factor 7.  
 $\frac{7}{14} = \frac{1}{2}$

**Compare**  
 $\frac{3}{8} < \frac{3}{7}$   
 $\frac{3}{7} < \frac{3}{6}$   
 $\frac{3}{6} < \frac{3}{5}$   
The larger the denominator the smaller the equal parts.  
so  $\frac{3}{4} > \frac{2}{3}$  because  $\frac{9}{12} > \frac{8}{12}$

**Order**  
 $\frac{5}{6}$  more than  $\frac{1}{2}$   
 $\frac{2}{5}$  less than  $\frac{1}{2}$   
 $\frac{8}{7}$  more than 1  
 $1\frac{3}{4}$  more than  $1\frac{1}{2}$

**Year 6 Term 3**

$\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$   
I can't describe the sum!  
Find a common denominator.  
 $\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$   
I can add fractions with the same denominator.

$\frac{3}{4} - \frac{2}{8} = \frac{6}{8} - \frac{2}{8} = \frac{4}{8} = \frac{1}{2}$   
I can't describe the part that is left!  
Find a common denominator.  
 $\frac{3}{4} - \frac{2}{8} = \frac{4}{8}$   
I can subtract fractions with the same denominator.

$2\frac{5}{8} + 1\frac{1}{4} = 3\frac{6}{8} = 3\frac{3}{4}$   
Adding mixed numbers.  
Add the whole numbers.  
Add the fractions by finding a common denominator.

$2\frac{5}{8} - 1\frac{1}{4} = 1\frac{4}{8} = 1\frac{1}{2}$   
Subtracting mixed numbers.  
Subtract the whole numbers.  
Subtract the fraction by finding a common denominator.

$\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$   
On a number line.

**Year 5**

Use equivalence to compare  $\frac{5}{8}, \frac{3}{4}, \frac{1}{2}$   
 $\frac{3}{4} = \frac{6}{8}$   
 $\frac{1}{2} = \frac{4}{8}$   
 $\frac{1}{2} < \frac{3}{4} < \frac{5}{8}$

If there are 2 times as many equal parts, then there are 2 times as many shaded parts.  
 $\frac{3}{5} = \frac{6}{10}$   
 $\frac{3}{5} = \frac{9}{15}$

**Year 4**

$\frac{4}{7} + \frac{5}{7} = \frac{9}{7}$   
When adding fractions with the same denominators the denominator stays the same, just add the numerators.

$\frac{13}{9} - \frac{7}{9} = \frac{6}{9}$   
When subtracting fractions with the same denominators the denominator stays the same, just subtract the numerators.

$\frac{1}{6}$  of 18 = 3  
 $5 \times 3 = 15$   
 $\frac{5}{6}$  of 18 =  $5 \times 3 = 15$

$\frac{1}{3} \times 3 = \frac{3}{9}$   
Use the same multiplier on the numerator and denominator.

$\frac{1}{3}$  of 12 = 4  
 $12 \div 3 = 4$

$\frac{1}{5}$  of 15 = 3  
 $15 \div 5 = 3$

$\frac{1}{3}$  of 12 = 4  
 $\frac{2}{3}$  of 12 =  $2 \times 4 = 8$

$\frac{1}{5}$  of 15 = 3  
 $\frac{4}{5}$  of 15 =  $4 \times 3 = 12$

$4 \times 3 = 12$

$\frac{1}{5} + \frac{1}{5} = \frac{2}{5}$   
When adding fractions with the same denominators the denominator stays the same, just add the numerators.

$\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$   
When subtracting fractions with the same denominators the denominator stays the same, just subtract the numerators.



**Year 1**

One half is one of two equal parts.  
 $\frac{1}{2}$  of each shape is yellow.

Share equally into 2 groups.  
8 divided by 2 is 4.

One quarter is one of four equal parts.  
 $\frac{1}{4}$  of each shape is yellow.

Share into 4 equal groups.  
8 divided by 4 is 2.



**Year 2**

One third is one of three equal parts.  
 $\frac{1}{3}$  of the whole is yellow.

Share equally into 3 groups.  
12 divided by 3 is 4.

$\frac{3}{4}$  of the whole is yellow.  
3 of 4 equal parts.

Two quarters are equivalent to one half.  
 $\frac{2}{4}$  of the whole is yellow.  
 $\frac{1}{2}$  of the whole is yellow.



**Year 3**

Unit fractions have a numerator of 1.  
 $\frac{1}{5}$ : If the denominator is 5 there are 5 equal parts.  
 $\frac{1}{8}$ : If the denominator is 8 there are 8 equal parts.

Non-unit fractions have a numerator greater than 1.  
 $\frac{2}{3}$  is 2 one thirds. The numerator is 2 so two out of 3 equal parts are shaded.

$\frac{4}{7} < \frac{6}{7}$   
When the denominators are the same, the larger the numerator, the larger the fraction.

$\frac{2}{7} < \frac{2}{5}$   
When numerators are the same, the larger the denominator the smaller the fraction.

$\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$   
If there are 2 times as many equal parts, then there are 2 times as many shaded parts.  
If there are 3 times as many equal parts, then there are 3 times as many shaded parts.