Adding fractions 1

Adding fractions with the same denominator is easy. You just add the numerators – the numbers on top – together.

1 Add the fractions and simplify the answers.

$\frac{1}{2} + \frac{1}{2} = \boxed{} = \boxed{}$ $\frac{2}{3} + \frac{1}{3} = \boxed{} = \boxed{}$ $\frac{3}{10} + \frac{3}{10} = \boxed{} = \boxed{}$

$\frac{1}{5} + \frac{4}{5} = \boxed{} = \boxed{}$ $\frac{3}{6} + \frac{1}{6} = \boxed{} = \boxed{}$ $\frac{6}{10} + \frac{4}{10} = \boxed{} = \boxed{}$

$\frac{6}{7} + \frac{1}{7} = \boxed{} = \boxed{}$ $\frac{3}{5} + \frac{2}{5} = \boxed{} = \boxed{}$ $\frac{5}{10} + \frac{3}{10} = \boxed{} = \boxed{}$

$\frac{5}{6} + \frac{1}{6} = \boxed{} = \boxed{}$ $\frac{2}{7} + \frac{5}{7} = \boxed{} = \boxed{}$ $\frac{8}{10} + \frac{2}{10} = \boxed{} = \boxed{}$

2 Add these fractions. Simplify any answer you can.

$\frac{1}{5} + \frac{1}{5} = \boxed{}$ $\frac{1}{4} + \frac{1}{4} = \boxed{}$ $\frac{5}{7} + \frac{1}{7} = \boxed{}$

$\frac{4}{6} + \frac{1}{6} = \boxed{}$ $\frac{1}{5} + \frac{2}{5} = \boxed{}$ $\frac{6}{10} + \frac{2}{10} = \boxed{}$

$\frac{3}{6} + \frac{1}{6} = \boxed{}$ $\frac{3}{5} + \frac{1}{5} = \boxed{}$ $\frac{4}{10} + \frac{5}{10} = \boxed{}$

$\frac{2}{7} + \frac{3}{7} = \boxed{}$ $\frac{1}{3} + \frac{1}{3} = \boxed{}$ $\frac{3}{10} + \frac{6}{10} = \boxed{}$

$\frac{3}{6} + \frac{2}{6} = \boxed{}$ $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \boxed{}$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \boxed{}$

3 Darius adds one-fifth ($\frac{1}{5}$) of 10 to two-fifths ($\frac{2}{5}$) of 20.

What answer does he arrive at? $\boxed{}$

4 Emmie adds a quarter ($\frac{1}{4}$) of 12 to three-quarters ($\frac{3}{4}$) of 16.

What answer does she arrive at? $\boxed{}$

5 Clara adds six-tenths ($\frac{6}{10}$) of 30 p to three-tenths ($\frac{3}{10}$) of 20 p.

How much does Clara now have? $\boxed{}$

6 David adds three-quarters ($\frac{3}{4}$) of 40 p to one-quarter ($\frac{1}{4}$) of 16 p.

How much does David now have? $\boxed{}$

7 Answer these questions.

Add $\frac{3}{5}$ of 25 to $\frac{2}{5}$ of 25. $\boxed{}$

How much is $\frac{7}{10}$ of 20 added to $\frac{1}{10}$ of 20? $\boxed{}$

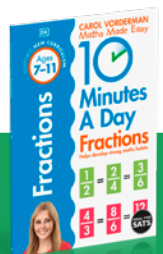How much is $\frac{6}{10}$ of £10 added to $\frac{2}{10}$ of £10? $\boxed{}$

Adding fractions 2

Adding fractions together can give you a fraction where the numerator is greater than the denominator. Here, you will practise converting these "improper" fractions to mixed numbers.

1 Add the fractions. Then write answers as whole numbers and fractions.

$\frac{1}{2} + \frac{3}{2} = \boxed{} = \boxed{}$ $\frac{3}{2} + \frac{2}{2} = \boxed{} = \boxed{}$ $\frac{5}{2} + \frac{4}{2} = \boxed{} = \boxed{}$

$\frac{4}{2} + \frac{7}{2} = \boxed{} = \boxed{}$ $\frac{1}{4} + \frac{3}{4} = \boxed{} = \boxed{}$ $\frac{6}{4} + \frac{2}{4} = \boxed{} = \boxed{}$

$\frac{4}{4} + \frac{3}{4} = \boxed{} = \boxed{}$ $\frac{6}{4} + \frac{5}{4} = \boxed{} = \boxed{}$ $\frac{2}{4} + \frac{3}{4} = \boxed{} = \boxed{}$

2 Find the totals.

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

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

3 How many fifths altogether? Convert answers to a whole number and a fraction.

$\frac{2}{5} + \frac{7}{5} = \boxed{} = \boxed{}$ $\frac{3}{5} + \frac{3}{5} = \boxed{} = \boxed{}$ $\frac{10}{5} + \frac{5}{5} = \boxed{} = \boxed{}$

4 How many tenths altogether? Convert answers to a whole number and a fraction.

$\frac{7}{10} + \frac{6}{10} = \boxed{} = \boxed{}$ $\frac{8}{10} + \frac{4}{10} = \boxed{} = \boxed{}$

5 Add $\frac{3}{5}$ to each fraction. Write the answers as mixed numbers.

$\frac{2}{5} \boxed{}$ $\frac{3}{5} \boxed{}$ $\frac{5}{5} \boxed{}$ $\frac{9}{5} \boxed{}$

6 Add $\frac{7}{10}$ to each fraction. Write the answers as mixed numbers.

$\frac{7}{10} \boxed{}$ $\frac{3}{10} \boxed{}$ $\frac{9}{10} \boxed{}$ $\frac{4}{10} \boxed{}$

7 What must be added to $\frac{2}{5}$ to make $\frac{4}{5}$? $\boxed{}$

8 What is the total of $\frac{2}{3}$, $\frac{3}{3}$ and $\frac{4}{3}$? $\boxed{}$

9 A class has 30 children.

$\frac{3}{5}$ of them are boys. What fraction are the girls? $\boxed{}$

$\frac{1}{4}$ of them have green eyes. What fraction do not have green eyes? $\boxed{}$

3 children were born in March. What fraction of the class is that? $\boxed{}$

Answers:

Adding fractions 1

1 Add the fractions and simplify the answers.

$\frac{1}{2}+\frac{1}{2}=\frac{2}{2}=1$ $\frac{2}{3}+\frac{1}{3}=\frac{3}{3}=1$ $\frac{3}{10}+\frac{3}{10}=\frac{6}{10}=\frac{3}{5}$

$\frac{1}{5}+\frac{4}{5}=\frac{5}{5}=1$ $\frac{3}{6}+\frac{1}{6}=\frac{4}{6}=\frac{2}{3}$ $\frac{6}{10}+\frac{4}{10}=\frac{10}{10}=1$

$\frac{6}{7}+\frac{1}{7}=\frac{7}{7}=1$ $\frac{3}{5}+\frac{2}{5}=\frac{5}{5}=1$ $\frac{5}{10}+\frac{3}{10}=\frac{8}{10}=\frac{4}{5}$

$\frac{5}{6}+\frac{1}{6}=\frac{6}{6}=1$ $\frac{2}{7}+\frac{5}{7}=\frac{7}{7}=1$ $\frac{8}{10}+\frac{2}{10}=\frac{10}{10}=1$

2 Add these fractions. Simplify any answer you can.

$\frac{1}{5}+\frac{1}{5}=\frac{2}{5}$ $\frac{1}{4}+\frac{1}{4}=\frac{1}{2}$ $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$

$\frac{4}{6}+\frac{1}{6}=\frac{5}{6}$ $\frac{1}{5}+\frac{2}{5}=\frac{3}{5}$ $\frac{6}{10}+\frac{2}{10}=\frac{4}{5}$

$\frac{3}{6}+\frac{1}{6}=\frac{2}{3}$ $\frac{3}{5}+\frac{1}{5}=\frac{4}{5}$ $\frac{4}{10}+\frac{5}{10}=\frac{9}{10}$

$\frac{2}{7}+\frac{3}{7}=\frac{5}{7}$ $\frac{1}{3}+\frac{1}{3}=\frac{2}{3}$ $\frac{3}{10}+\frac{6}{10}=\frac{9}{10}$

$\frac{3}{6}+\frac{2}{6}=\frac{5}{6}$ $\frac{1}{4}+\frac{1}{4}+\frac{1}{4}=\frac{3}{4}$ $\frac{1}{5}+\frac{1}{5}+\frac{1}{5}=\frac{3}{5}$

3 Darius adds one-fifth ($\frac{1}{5}$) of 10 to two-fifths ($\frac{2}{5}$) of 20.

What answer does he arrive at? [10]

4 Emmie adds a quarter ($\frac{1}{4}$) of 12 to three-quarters ($\frac{3}{4}$) of 16.

What answer does she arrive at? [15]

5 Clara adds six-tenths ($\frac{6}{10}$) of 30p to three-tenths ($\frac{3}{10}$) of 20p.

How much does Clara now have? [24p]

6 David adds three-quarters ($\frac{3}{4}$) of 40p to one-quarter ($\frac{1}{4}$) of 16p.

How much does David now have? [34p]

7 Answer these questions.

Add $\frac{3}{5}$ of 25 to $\frac{2}{5}$ of 25. [25]

How much is $\frac{7}{10}$ of 20 added to $\frac{1}{10}$ of 20? [16]

How much is $\frac{6}{10}$ of £10 added to $\frac{2}{10}$ of £10? [£8]

Your child will usually find adding fractions with a common denominator very straightforward. It is very important, however, that he or she understands what is happening in the process. He or she must also learn to quickly recognise how an answer such as   may be simplified.

Adding fractions 2

1 Add the fractions. Then write answers as whole numbers and fractions.

$\frac{1}{2}+\frac{3}{2}=\frac{4}{2}=2$ $\frac{3}{2}+\frac{2}{2}=\frac{5}{2}=2\frac{1}{2}$ $\frac{5}{2}+\frac{4}{2}=\frac{9}{2}=4\frac{1}{2}$

$\frac{4}{2}+\frac{7}{2}=\frac{11}{2}=5\frac{1}{2}$ $\frac{1}{4}+\frac{3}{4}=\frac{4}{4}=1$ $\frac{6}{4}+\frac{2}{4}=\frac{8}{4}=2$

$\frac{4}{4}+\frac{3}{4}=\frac{7}{4}=1\frac{3}{4}$ $\frac{6}{4}+\frac{5}{4}=\frac{11}{4}=2\frac{3}{4}$ $\frac{2}{4}+\frac{3}{4}=\frac{5}{4}=1\frac{1}{4}$

2 Find the totals.

$\frac{1}{2}+\frac{1}{2}+\frac{1}{2}=\frac{3}{2}=1\frac{1}{2}$ $\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}=\frac{7}{2}=3\frac{1}{2}$

$\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}=\frac{5}{2}=2\frac{1}{2}$ $\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}=\frac{6}{2}=3$

3 How many fifths altogether? Convert answers to a whole number and a fraction.

$\frac{2}{5}+\frac{7}{5}=\frac{9}{5}=1\frac{4}{5}$ $\frac{3}{5}+\frac{3}{5}=\frac{6}{5}=1\frac{1}{5}$ $\frac{10}{5}+\frac{5}{5}=\frac{15}{5}=3$

4 How many tenths altogether? Convert answers to a whole number and a fraction.

$\frac{7}{10}+\frac{6}{10}=\frac{13}{10}=1\frac{3}{10}$ $\frac{8}{10}+\frac{4}{10}=\frac{12}{10}=1\frac{2}{10}$

5 Add $\frac{3}{5}$ to each fraction. Write the answers as mixed numbers.

$\frac{2}{5}$ [1] $\frac{3}{5}$ [$1\frac{1}{5}$] $\frac{5}{5}$ [$1\frac{3}{5}$] $\frac{9}{5}$ [$2\frac{2}{5}$]

6 Add $\frac{7}{10}$ to each fraction. Write the answers as mixed numbers.

$\frac{7}{10}$ [$1\frac{4}{10}$] $\frac{3}{10}$ [1] $\frac{9}{10}$ [$1\frac{6}{10}$] $\frac{4}{10}$ [$1\frac{1}{10}$]

7 What must be added to $\frac{2}{5}$ to make $\frac{4}{5}$? [$\frac{2}{5}$]

8 What is the total of $\frac{2}{3}$, $\frac{3}{3}$ and $\frac{4}{3}$? [3]

9 A class has 30 children.

$\frac{3}{5}$ of them are boys. What fraction are the girls? [$\frac{2}{5}$]

$\frac{1}{4}$ of them have green eyes. What fraction do not have green eyes? [$\frac{3}{4}$]

3 children were born in March. What fraction of the class is that? [$\frac{1}{10}$]

Most of these fraction additions end up with an answer which is greater than one whole. Hence, your child should begin to recognise these situations and convert the answer into mixed numbers, that is a whole number with a fractional amount. For example: can also be written as   .