




Fraction equivalences

Let's learn

$\frac{4}{5}$ add $\frac{3}{10}$ is $\frac{7}{15}$



You need:

- paper strips
- coins  
- measuring jugs 

No, that's not right. If you think about it, $\frac{7}{15}$ is less than $\frac{4}{5}$. If you add $\frac{4}{5}$ and $\frac{3}{10}$ the answer can't be less than $\frac{4}{5}$!

Comparing and ordering fractions

To compare and order fractions, turn them into equivalent fractions with the same denominator. This is called the **common denominator**.

Whatever you do to the denominator, you must do the numerator.

To compare $1\frac{3}{4}$ and $1\frac{4}{5}$, you can ignore the whole numbers as they are the same.

The lowest common denominator for the fractions is 20, because 20 is a multiple of 4 and 5.

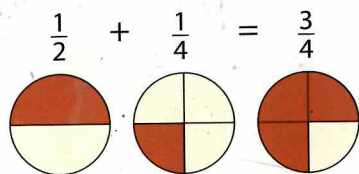
$$\frac{3}{4} \times 5 = \frac{15}{20} \qquad \frac{4}{5} \times 4 = \frac{16}{20}$$

So $1\frac{4}{5}$ is larger than $1\frac{3}{4}$.

Adding and subtracting fractions

To add or subtract fractions, turn them into equivalent fractions with a common denominator.

These diagrams show another way of finding common denominators.



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

So

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

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



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

So

$$\frac{4}{6} + \frac{5}{6} = \frac{9}{6} = \frac{13}{6}$$

Teacher's Guide



Before working through the *Textbook*, study page 102 of the *Teacher's Guide* to see how the concepts should be introduced. Read and discuss the page with the children. Provide concrete resources to support exploration.

Let's practise

1

Answer these.

Which is the smaller fraction?

a $\frac{3}{4}$ or $\frac{5}{8}$

b $\frac{2}{3}$ or $\frac{5}{6}$

c $1\frac{1}{2}$ or $1\frac{2}{3}$

d $2\frac{2}{3}$ or $2\frac{5}{9}$

Which is the larger fraction?

e $\frac{2}{3}$ or $\frac{4}{5}$

f $\frac{3}{4}$ or $\frac{2}{3}$

g $2\frac{1}{3}$ or $2\frac{3}{5}$

h $3\frac{1}{2}$ or $3\frac{3}{9}$

Remember to find common denominators!



2

Calculate.

Add and subtract fractions.

a $\frac{1}{2} + \frac{5}{6}$

c $\frac{2}{5} + \frac{2}{3}$

e $\frac{7}{8} - \frac{1}{4}$

g $\frac{7}{10} - \frac{1}{4}$

b $\frac{3}{4} + \frac{5}{8}$

d $\frac{5}{6} + \frac{7}{9}$

f $\frac{5}{6} - \frac{2}{3}$

h $\frac{7}{8} - \frac{1}{6}$

3

Apply.

Find the sum of these amounts of money.

a $\frac{2}{5}$ of £1 + $\frac{1}{4}$ of £1

b $2\frac{2}{5}$ of £1 + $1\frac{3}{10}$ of £1

c $2\frac{1}{2}$ of £1 + $2\frac{9}{10}$ of £1

d $3\frac{3}{5}$ of £1 + $3\frac{3}{4}$ of £1

Make the amounts using the fewest coins possible.

Subtract these liquid volumes.

e $5\frac{7}{8}$ l - 2 l

g $9\frac{5}{6}$ l - $6\frac{3}{8}$ l

f $4\frac{2}{3}$ l - $3\frac{1}{5}$ l

h $10\frac{2}{3}$ l - $8\frac{1}{4}$ l

Round your differences to the nearest 500 ml.
Measure them into containers.

4

Think.

Ali measured 3 jugs of juice.

A $2\frac{3}{4}$ litres



B $2\frac{2}{3}$ litres



C $2\frac{5}{8}$ litres



Which jug has the greatest volume?
Which jug has the least volume?

Teacher's Guide



See page 103 of the *Teacher's Guide* for ideas of how to guide practice. Work through each step together as a class to develop children's conceptual understanding.