



Fractions week

with Miss Maths

This week we will be learning about Fractions



First, we will revise our fraction arithmetic skills.



We will then look at reasoning questions involving fractions.



We will finish the week with a Fraction problem solving activity.

- These are the types of arithmetic questions you need to be able to solve



Create 2 lists. On the left make a list of all the skills you have mastered 😊 and on the right make a list of the skills you need to revisit ☹️



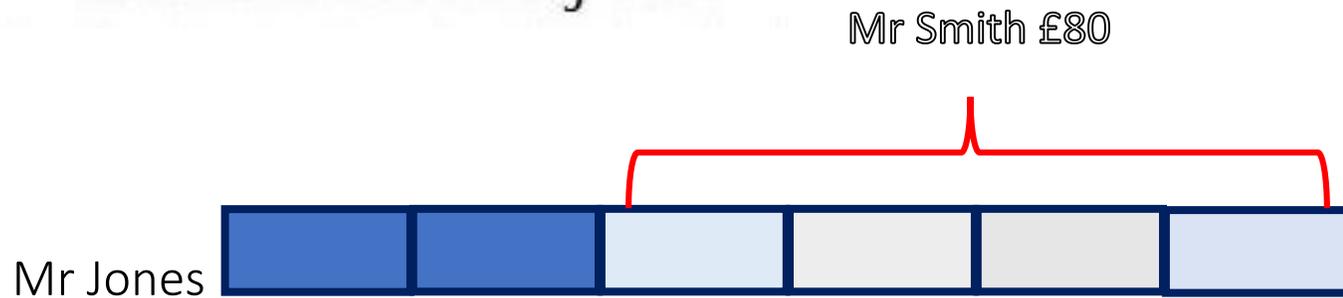
1. Simplifying a fraction (**key skill**)
2. Turning an improper fraction into a mixed number (**key skill**)
3. Turning a mixed number into a fraction (**key skill**)
4. Adding fractions with the same denominator
5. Adding fractions with a different denominator (adjusting one fraction only)
6. Adding fractions with a different denominator (adjusting both fractions by **finding the common denominator**)
7. Subtracting fractions with the same denominator
8. Subtracting fractions with a different denominator (adjusting one fraction only)
9. Subtracting fractions with a different denominator (adjusting both fractions **by finding the common denominator**)
10. Multiplying fractions ❤️
11. Multiplying a mixed number by a whole number ❤️
12. Multiplying a fraction by a whole number ❤️
13. Dividing a fraction by a whole number (**KCF**)

Let's take a look at this problem.

We're going to use a bar model to solve this.

Mr Jones and Mr Smith book a weekend away for their families. Mr Jones pays $\frac{2}{6}$ of the cost and Mr Smith pays the remaining £80. How much does the holiday cost?

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What do we know about Mr Jones?
What shall we draw to represent this info?
What do we know about Mr Smith?
Bar modelling is all about finding out what the value of one part is.
We know 4 parts equal £80 so what does one part make?
What calculation do we need to do?
Let's write that amount in each part 😊

So how much does the holiday cost?



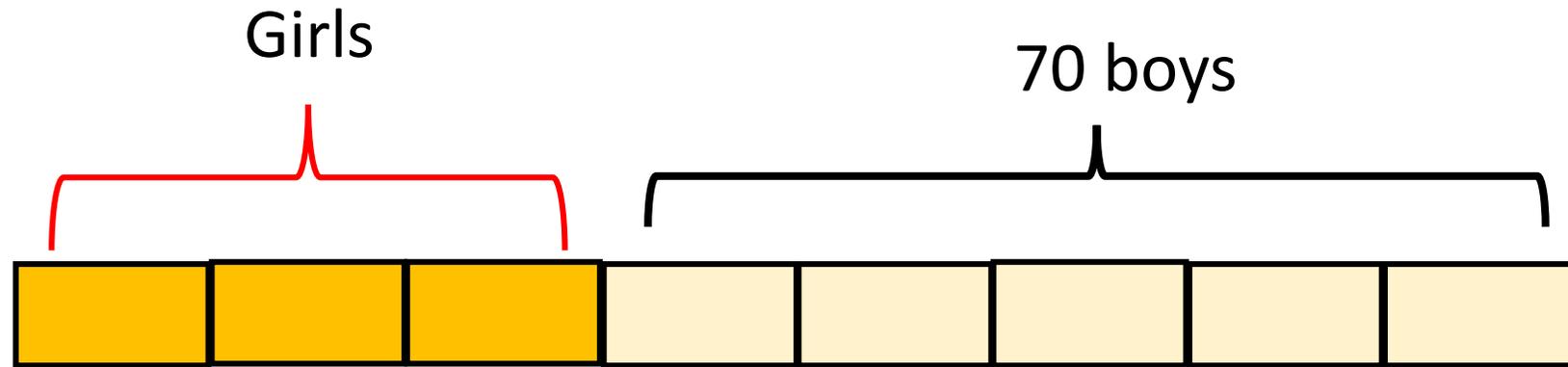
Let's solve another problem using a bar model to make sense of it.

In key stage 1, there are 70 boys and $\frac{3}{8}$ are girls. How many girls are key stage 1?

First of all I need to draw my bar.
How many parts should I cut it into?
How many parts represent the girls?
How many parts represent the boys?
Can you represent this problem as a bar model.
Add labels too.



Here is my bar:



Remember we need to find out what one of those parts represents!
Is the answer to this question in the **girls section** or in the **boys section**?

We need to do a calculation here to figure out what one part represents?

What is that calculation?

Let's write that amount in each part 😊

So how many girls are in key stage 1?

Read the problem below.

Ella and Joe have a bag of 1p coins.
Ella counts her coins, she has 55p. Joe
counts the remaining $\frac{2}{7}$. How much
does Joe have?



Read the question 2/3 times.

How many parts do you need for your bar?

What are you trying to find out in this problem?

How many parts show Bella's amount of money?

How many parts show Joe's amount?

Draw your bar model and solve the problem.

Here is my bar:



Ella and Joe have a bag of 1p coins.
Ella counts her coins, she has 55p. Joe
counts the remaining $\frac{2}{7}$. How much
does Joe have?



Remember it's all about finding the value of one part.
So who will help me solve this, Joe or Ella?
What is the calculation that I need to find out the value of one part?
That's right $55 \div 5 = ?$
Fill in in each part with the same value.
So how much does Joe have?

Try these questions on your own:

Fractions

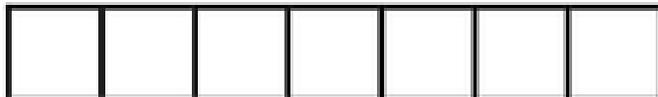
- 1 Choose one of these symbols

$<$, $>$ or $=$

to make the number sentences correct.

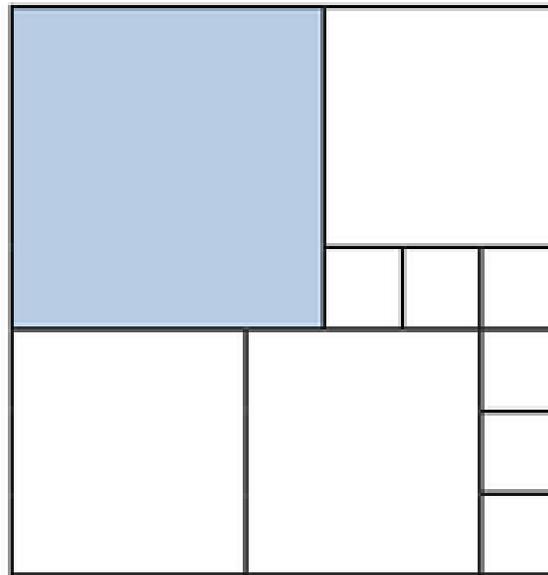
$$\frac{1}{5} \bigcirc \frac{1}{7} \quad \frac{3}{5} \bigcirc \frac{4}{7}$$

You may use the fraction strips below to help you.



- 2 A square is divided into smaller squares.

What fraction is shaded?



Fraction of an Amount

1 Work out the missing values

$$\frac{2}{5} \text{ of } 30 = 3 \times \boxed{}$$

$$\frac{7}{10} \text{ of } 30 = \frac{3}{4} \text{ of } \boxed{}$$

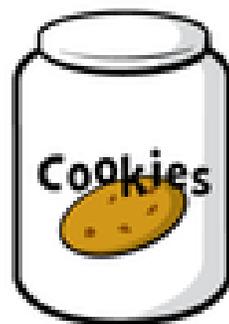
2 Here is a number card



A quarter of the card is 14

Find $\frac{2}{7}$ of the card.

3 Sarah has some cookies in a jar.



In January she eats $\frac{5}{8}$ of the cookies.

There are 12 cookies left in the jar.

How many were in the jar at the start?

Well done!

- These reasoning questions involved deeper thinking skills.
- Bar modelling helps you make sense of a question. It doesn't tell you exactly what you need to do. You have to figure that out!
- You need to read a question 2/3 times.
- Circle the key info.
- Draw you bar using this info.
- Add labels.
- Make sense of it.
- Figure out how to find the value of one part. Then work out the next step...
- Finally go back and check you have answered the question.

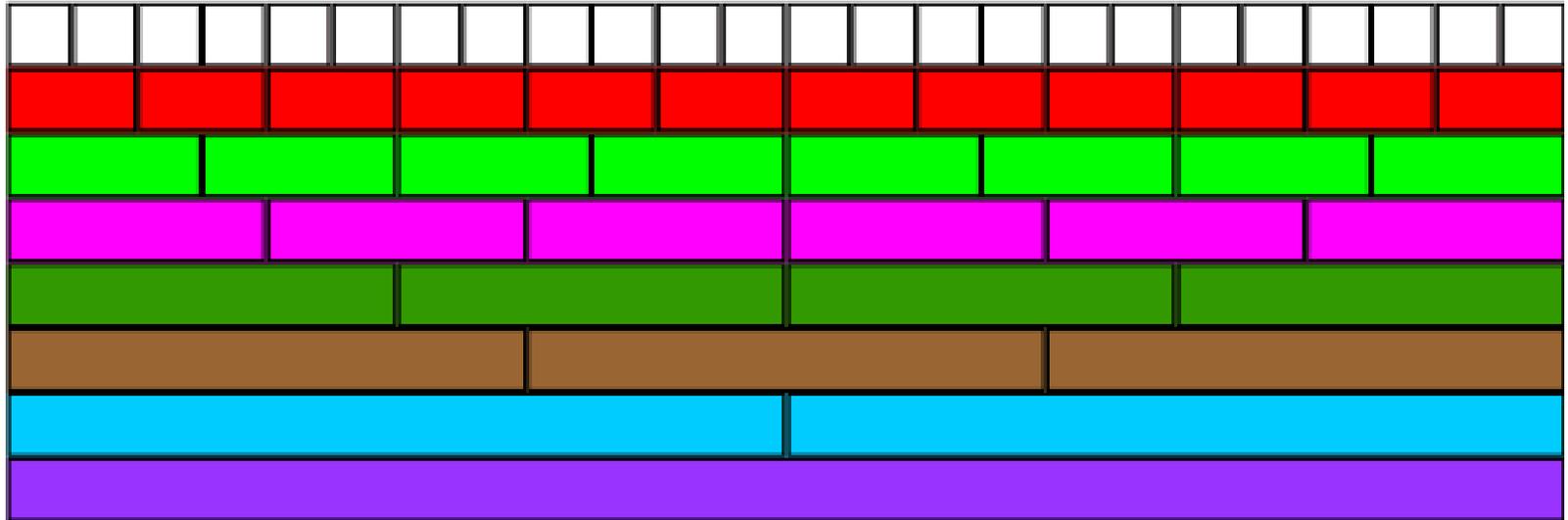


Fractional Wall

(NRich)

Age 7 to 11

An Nrich challenge



Using the image above, how many different ways can you find of writing $\frac{1}{2}$?

From the picture, what equivalent fractions for $\frac{1}{3}$ can you find?

Again, using the image of the fraction wall, how else could you write $\frac{3}{4}$?

What other fractions do you know that are the same as $\frac{1}{2}$?

Find some other fractions which are equivalent to $\frac{3}{4}$.

Can you find any "rules" for working out equivalent fractions? Write your answer in full sentences.