

# Reasoning and Problem Solving

## Step 8: Fraction of an Amount 2

### National Curriculum Objectives:

Mathematics Year 3: (3F1c) [Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators](#)

Mathematics Year 3: (3F1b) [Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators](#)

Mathematics Year 3: (3F3) [Compare and order unit fractions, and fractions with the same denominators](#)

### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

**Developing** Calculate the amount spent and total left when finding fractions of an amount up to £50 using denominations of 2, 3, 5, and 10 with pictorial support and no exchanging.

**Expected** Calculate the amount spent and total left when finding fractions of an amount up to £50 using denominations of 2, 3, 4, 5, 8 and 10 with pictorial support and some exchanging.

**Greater Depth** Calculate the amount spent and total left when finding fractions of an amount up to £50 any denomination with some pictorial support and some exchanging.

Questions 2, 5 and 8 (Problem Solving)

**Developing** Calculate the fraction remaining when finding fractions of an amount up to 5 times the denominator using denominations of 2, 3, 5, and 10 with pictorial support and no exchanging.

**Expected** Calculate the fractions remaining when finding fractions of an amount up to 12 times the denominator using denominations of 2, 3, 4, 5, 8 and 10 with pictorial support and some exchanging.

**Greater Depth** Calculate the fraction remaining when finding fractions of an amount up to 12 times and beyond the denominator using any denomination with some pictorial support and some exchanging.

Questions 3, 6 and 9 (Reasoning)

**Developing** Decide which statement is correct and explain why when finding fractions of an amount up to 5 times the denominator using denominations of 2, 3, 5, and 10 with pictorial support and no exchanging.

**Expected** Decide which statement is correct and explain why when finding fractions of an amount up to 12 times the denominator using denominations of 2, 3, 4, 5, 8 and 10 with pictorial support and some exchanging.

**Greater Depth** Decide which statement is correct and explain why when finding fractions of an amount up to 12 times and beyond the denominator using any denomination with some pictorial support and some exchanging.

More [Year 3 Fractions](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

## Fraction of an Amount 2

1a. Alex and Julia each have £20 to spend.



Alex

I spent  $\frac{3}{5}$  of my money.



Julia

I spent  $\frac{2}{10}$  of my money.

How much money does each child spend?

How much do they have left?



PS

## Fraction of an Amount 2

1b. Jan and Isma each have £10 to spend.



Jan

I spent  $\frac{1}{2}$  of my money.



Isma

I spent  $\frac{3}{10}$  of my money.

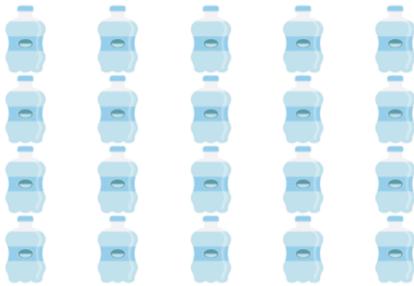
How much money does each child spend?

How much do they have left?



PS

2a. Daniel has 20 bottles of water.



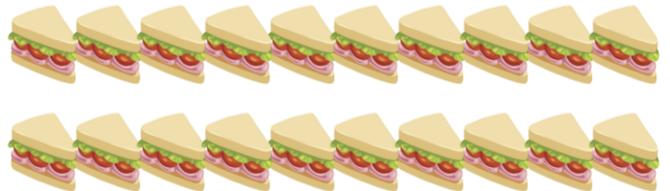
He gives  $\frac{3}{10}$  to his friend and  $\frac{2}{5}$  to his cousin.

How many does he have left?



PS

2b. Amelia has 20 sandwiches.



She gives  $\frac{3}{4}$  to her brother and  $\frac{2}{10}$  to her sister.

How many does she have left?



PS

3a. Hasan and Olivia are calculating fractions of an amount.

Out of 12 apple pies, two thirds are sold. How many are left?



Hasan

There will be 4 left.



Olivia

There will be 8 left.

Who is correct? Explain how you know.



R

3b. Evie and Harry are calculating fractions of an amount.

Out of 15 bunches of grapes, four fifths are sold. How many are left?



Evie

There will be 3 left.



Harry

There will be 12 left.

Who is correct? Explain how you know.



R

## Fraction of an Amount 2

4a. Steph and Jake each have £40 to spend.



I spent  $\frac{3}{10}$  of my money.

Steph

I spent  $\frac{2}{5}$  of my money.



Jake

How much money does each child spend?

How much do they have left?



PS

## Fraction of an Amount 2

4b. Marie and Saalih each have £32 to spend.



I spent  $\frac{5}{8}$  of my money.

Marie

I spent  $\frac{3}{4}$  of my money.



Saalih

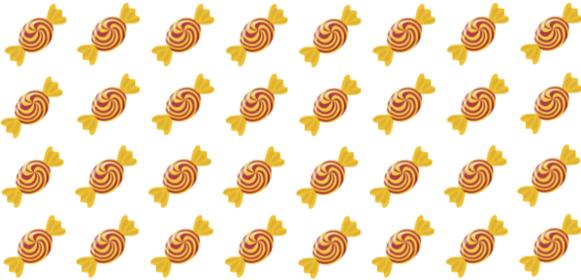
How much money does each child spend?

How much do they have left?



PS

5a. Sinead has 32 sweets.



She gives  $\frac{3}{8}$  to her brother and  $\frac{2}{4}$  to her sister.

How many does she have left?



PS

5b. Stefan has 20 erasers.



He gives  $\frac{4}{10}$  to his cousin and  $\frac{2}{5}$  to his sister.

How many does he have left?



PS

6a. Hafsa and Chuan are calculating fractions of an amount.

Out of 30 cupcakes, three fifths are sold. How many are left?



Hafsa

There will be 18 left.

There will be 12 left.



Chuan

Who is correct? Explain how you know.



R

6b. Lucy and Joseph are calculating fractions of an amount.

Out of 27 ice creams, two thirds are sold. How many are left?



Lucy

There will be 9 left.

There will be 18 left.



Joseph

Who is correct? Explain how you know.



R

## Fraction of an Amount 2

7a. Blake and Li each have £48 to spend.



Blake

I spent  $\frac{4}{6}$  of my money.



Li

I spent  $\frac{5}{8}$  of my money.

How much money does each child spend?

How much do they have left?



PS

## Fraction of an Amount 2

7b. Ellie and Junior each have £42 to spend.



Ellie

I spent  $\frac{6}{7}$  of my money.



Junior

I spent  $\frac{5}{6}$  of my money.

How much money does each child spend?

How much do they have left?



PS

8a. Hamza has 45 balloons.



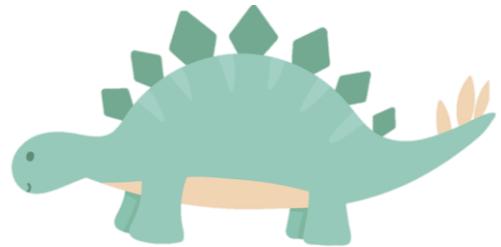
He gives  $\frac{5}{9}$  to his cousin and  $\frac{2}{5}$  to his friend.

How many does he have left?



PS

8b. Natalia has 66 dinosaur toys.



She gives  $\frac{6}{11}$  to her brother and  $\frac{2}{6}$  to her sister.

How many does she have left?



PS

9a. Oliver and Grace are calculating fractions of an amount.

Out of 132 colouring pens, five twelfths are sold. How many are left?



Oliver

There will be 55 left.



Grace

There will be 77 left.

Who is correct? Explain how you know.



R

9b. Anika and Jakub are calculating fractions of an amount.

Out of 117 biscuits, seven ninths are sold. How many are left?



Anika

There will be 26 left.



Jakub

There will be 91 left.

Who is correct? Explain how you know.



R

## Reasoning and Problem Solving Fraction of an Amount 2

### Developing

- 1a. Alex spends £12, he has £8 left. Julia spends £4, she has £16 left.  
2a. 6  
3a. Hasan is correct. Olivia has calculated how many have been sold.

### Expected

- 4a. Steph spends £12, she has £28 left. Jake spends £16, he has £24 left.  
5a. 4  
6a. Chuan is correct. Hafsa has calculated how many have been sold.

### Greater Depth

- 7a. Blake spends £32, he has £16 left. Li spends £30, she has £18 left.  
8a. 2  
9a. Grace is correct. Oliver has calculated how many have been sold.

## Reasoning and Problem Solving Fraction of an Amount 2

### Developing

- 1b. Jan spends £5, he has £5 left. Isma spends £3, she has £7 left.  
2b. 1  
3b. Evie is correct. Harry has calculated how many have been sold.

### Expected

- 4b. Marie spends £20, she has £12 left. Saalih spends £24, he has £8 left.  
5b. 4  
6b. Lucy is correct. Joseph has calculated how many have been sold.

### Greater Depth

- 7b. Ellie spends £36, she has £6 left. Junior spends £35, he has £7 left.  
8b. 8  
9b. Anika is correct. Jakub has calculated how many have been sold.