Power Maths

White Rose Maths

White Rose Maths Edition

Year 3 Textbook 3C

Pearson

Series Editor: Tony Staneff

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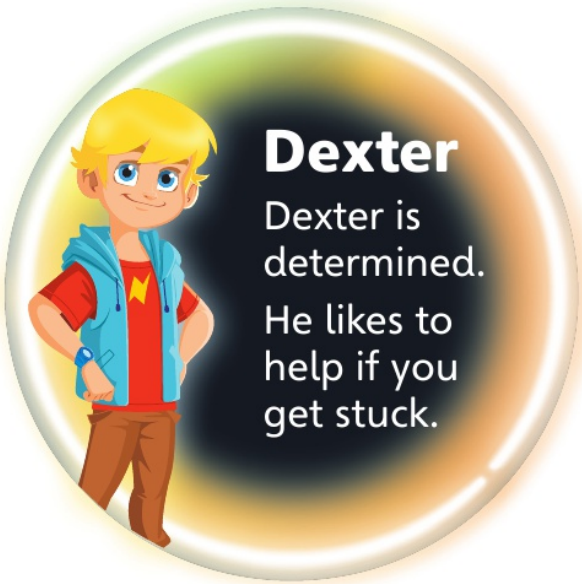

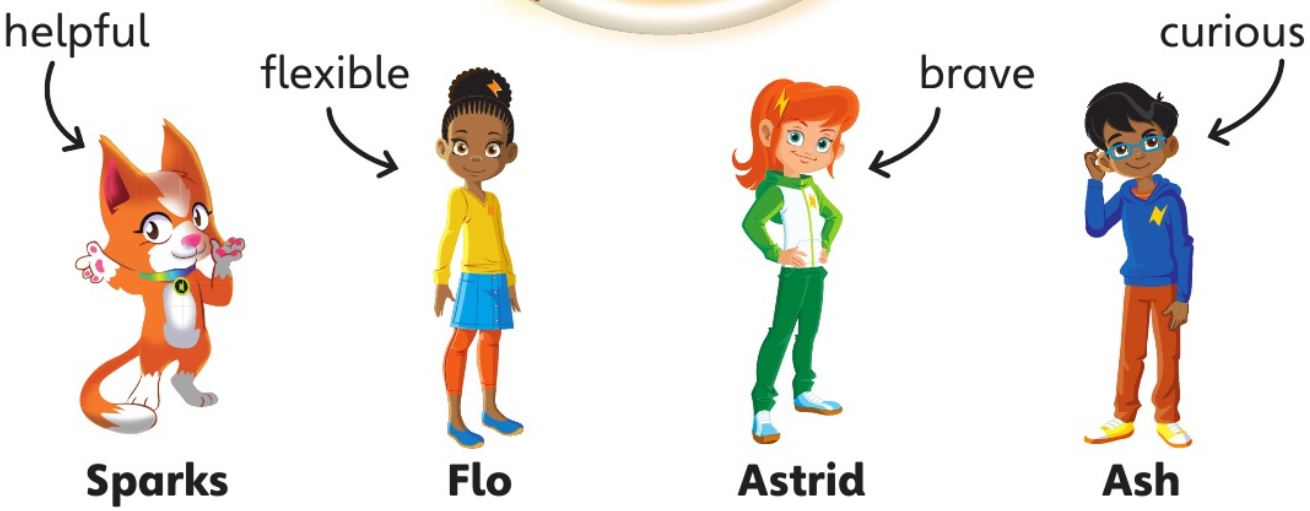

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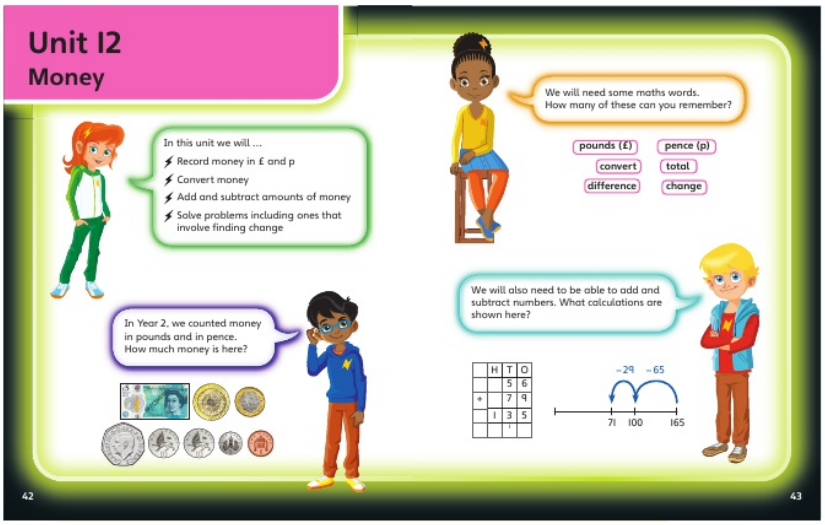
Contents

How to use this book

These pages make sure we are ready for the unit ahead. Find out what we will be learning and brush up on your skills!

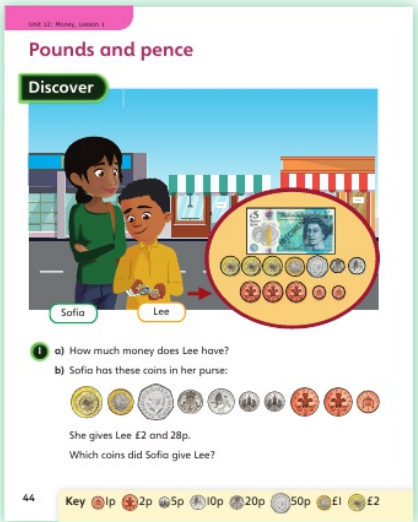


Discover

Lessons start with **Discover**.

Here, we explore new maths problems.

Can you work out how to find the answer?

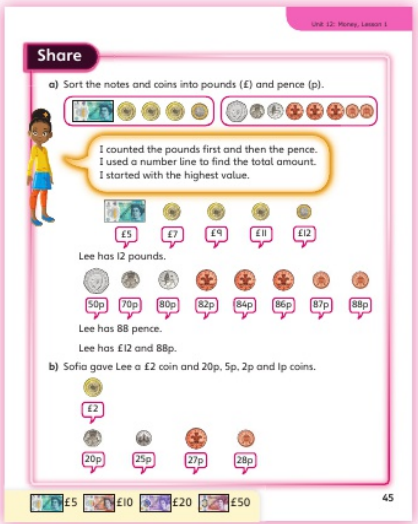


Do not be afraid to make mistakes. Learn from them and try again!

Share

Next, we share our ideas with the class.

Did we all solve the problems the same way?
What ideas can you try?



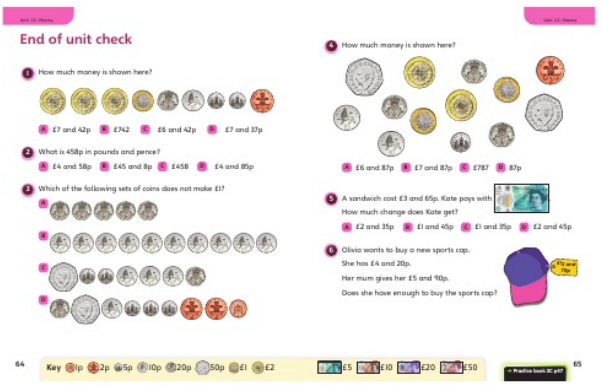
Think together

Then we have a go at some more problems together.
Use what you have just learnt to help you.

We will try a challenge too!

This tells you which page to go to in your **Practice Book**.

At the end of each unit there is an **End of unit check**. This is our chance to show how much we have learnt.

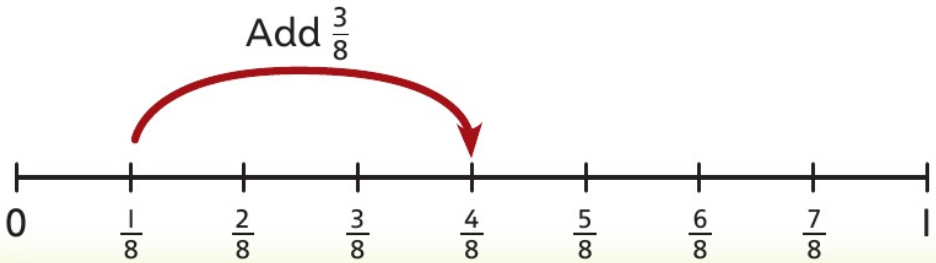


Unit II
Fractions 2

In this unit we will ...

- Add and subtract fractions
- Calculate fractions of a set of objects
- Find fractions of amounts
- Solve word problems about fractions
- Solve word problems about finding fractions of amounts and measures

Do you remember what this is called? Use it to find what fraction is $\frac{3}{8}$ more than $\frac{1}{8}$.



We will need some maths words.
Which of these have you met before?

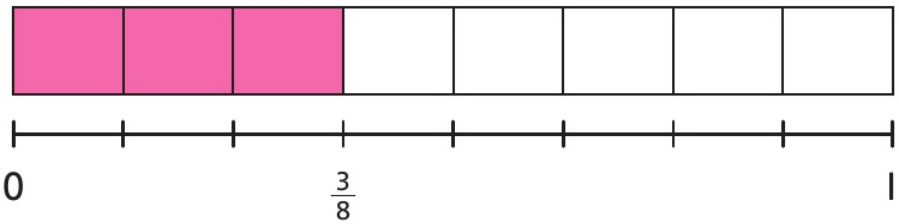
numerator denominator

add subtract fraction

whole equal to multiply

divide parts set of objects

We will need fraction strips too. Use the information in the fraction strip and number line to work out what fraction is shaded.



Add fractions

Discover

1 **a)** What fraction of the pizza does Zac have left?

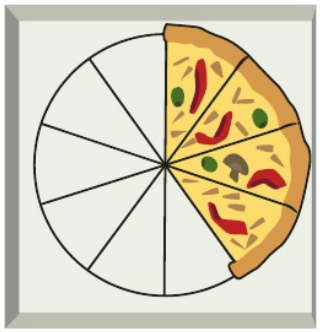
What fraction of the pizza does Isla have left?

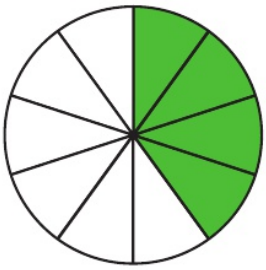
b) Add these two fractions together.

Share

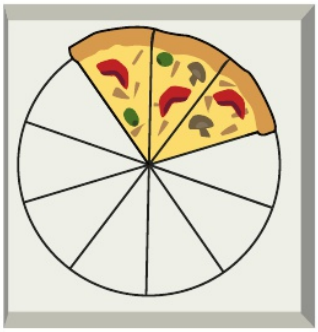
a) Each pizza is divided into 10 equal parts.

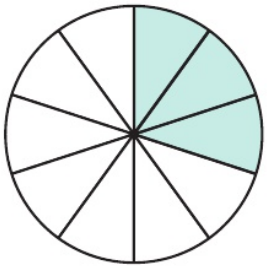
Zac has $\frac{4}{10}$ of the pizza left.



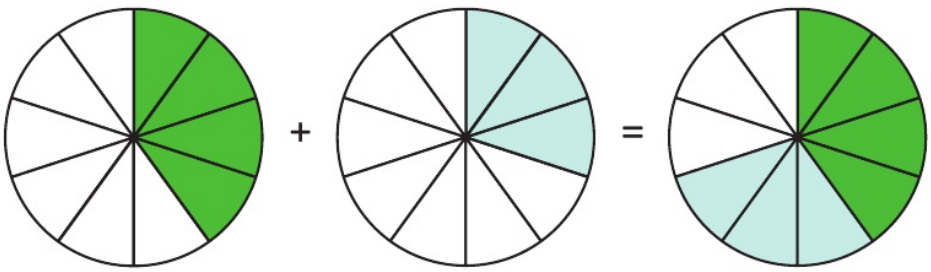


Isla has $\frac{3}{10}$ of the pizza left.





b)



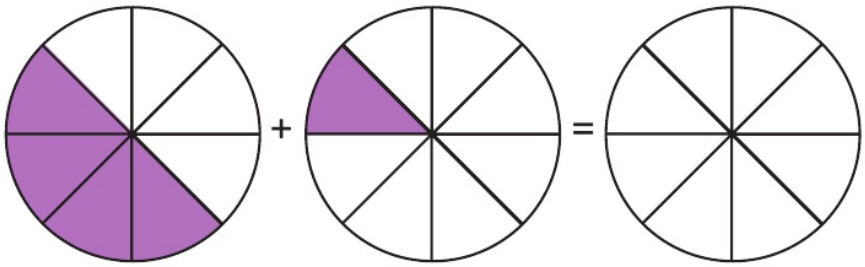
4 tenths + 3 tenths = 7 tenths

$\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$

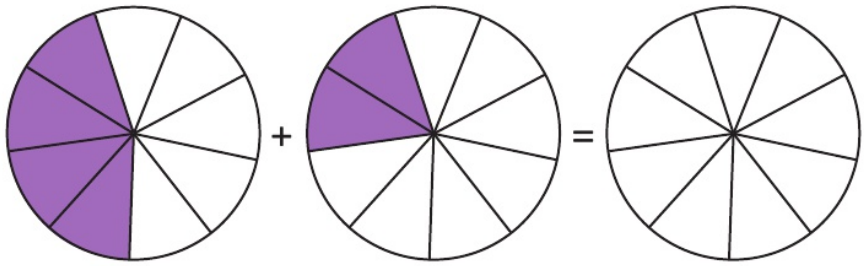
Think together

1 Add these fractions.

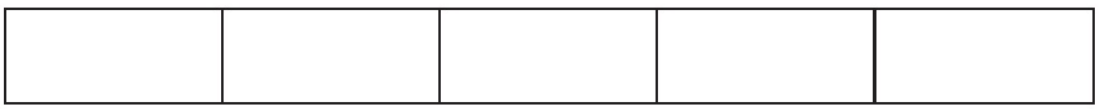
a) $\frac{4}{8} + \frac{1}{8} = \frac{\square}{\square}$



b) $\frac{4}{9} + \frac{2}{9} = \frac{\square}{\square}$



2 **a)** Use the fraction strip to work out $\frac{2}{5} + \frac{1}{5}$.



b) What calculation is shown by this fraction strip?

CHALLENGE

3 **a)** Add these fractions.

i) $\frac{3}{5} + \frac{1}{5} = \frac{\square}{\square}$

ii) $\frac{5}{12} + \frac{1}{12} = \frac{\square}{\square}$

iii) $\frac{1}{6} + \frac{3}{6} = \frac{\square}{\square}$

iv) $\frac{3}{5} + \frac{2}{5} = \frac{\square}{\square}$

I will use fraction strips to help me work out the answers.

I don't think I need to use fraction strips. I can see a quicker way of adding the fractions.

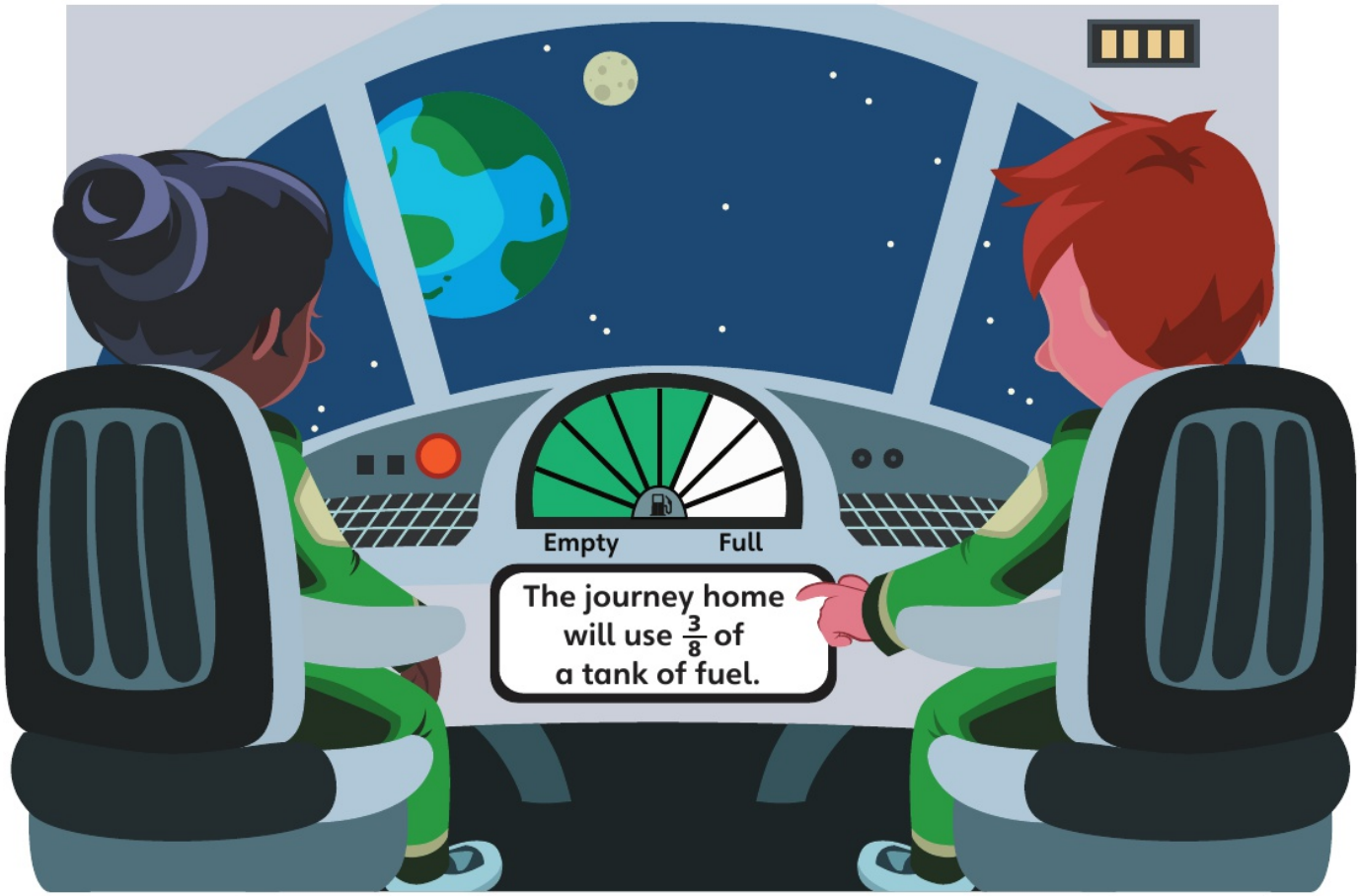
b) $\frac{\square}{11} + \frac{\square}{11} = \frac{8}{11}$

How many different answers can you find?

→ Practice book 3C p6

Subtract fractions

Discover



1 **a)** What fraction of the tank is full of fuel?

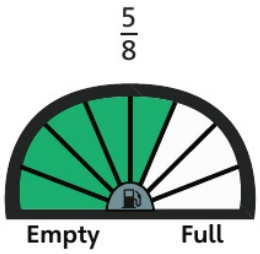
Represent this on a fraction strip.

b) How much fuel will be left after the journey home?

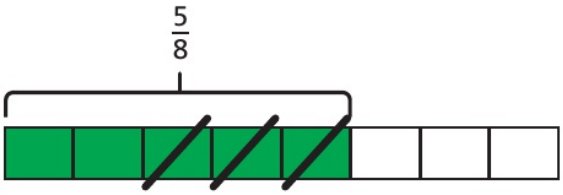
Share

a) The dial is divided into 8 equal sections.

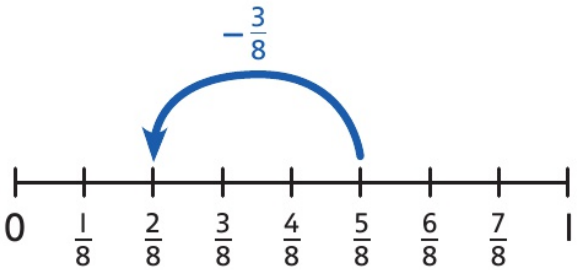
The tank is $\frac{5}{8}$ full.



b) The journey home will use $\frac{3}{8}$ of a tank of fuel.



I drew a fraction strip and shaded in $\frac{5}{8}$. Then I crossed out $\frac{3}{8}$.



I started at $\frac{5}{8}$ on a number line and I jumped back $\frac{3}{8}$.

5 eighths – 3 eighths = 2 eighths

$$\frac{5}{8} - \frac{3}{8} = \frac{2}{8}$$

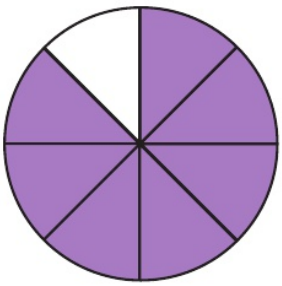
There will be $\frac{2}{8}$ of a tank of fuel left after the journey home.

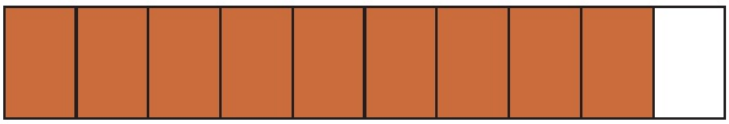
Think together

1 Complete these subtractions.

a) $\frac{7}{8} - \frac{5}{8} = \frac{\square}{\square}$

b) $\frac{9}{10} - \frac{2}{10} = \frac{\square}{10}$





2 Work out

a) $\frac{4}{5} - \frac{1}{5}$

b) $\frac{5}{7} - \frac{1}{7}$

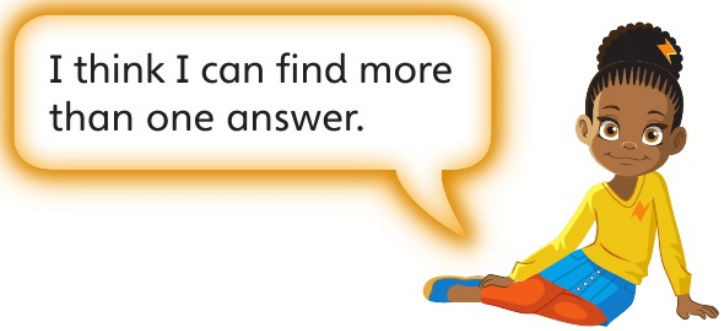
c) $\frac{10}{11} - \frac{6}{11}$

d) $\frac{7}{8} - \frac{7}{8}$

CHALLENGE

3 **a)** Complete the calculation.

$$\frac{\square}{7} - \frac{\square}{7} = \frac{2}{7}$$



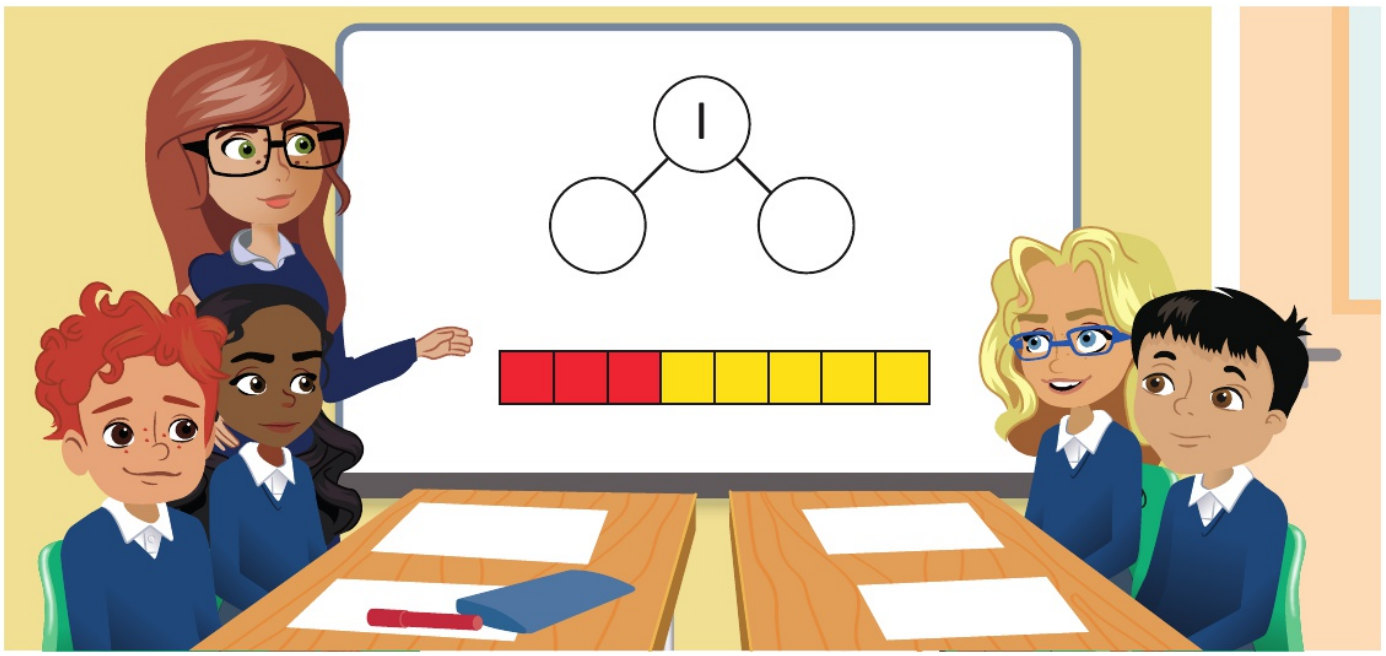
b) The difference between two fractions is $\frac{3}{10}$.

What could the fractions be?
Use the number line to help you.

→ Practice book 3C p9

Partition the whole

Discover



1 **a)** Complete the part-whole model for the fraction strip.

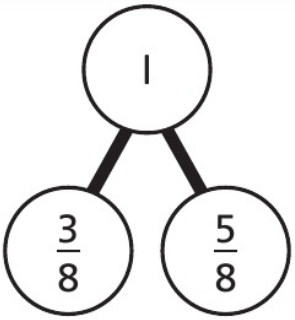
b) Draw another fraction strip with 8 equal parts.

Shade it in differently.

Draw a part-whole model for your shading.

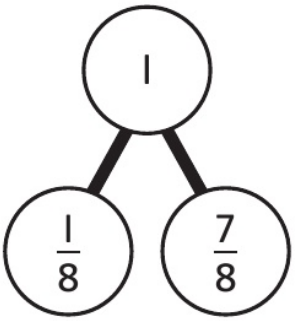
Share

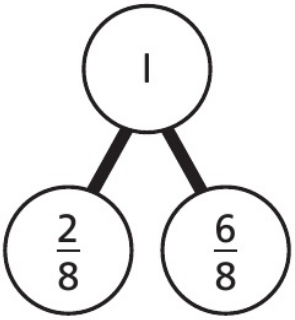
a) 3 parts are red and 5 parts are yellow.

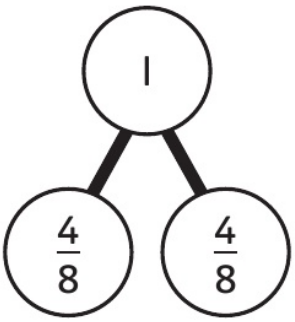


$\frac{3}{8}$ of the strip is red and $\frac{5}{8}$ of the strip is yellow.

b)



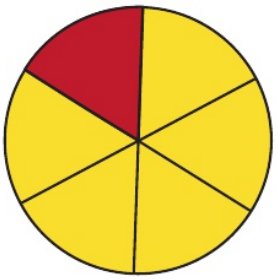


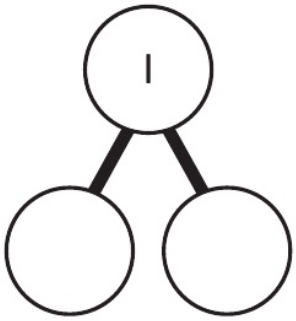


I found all the ways to shade a fraction strip with 8 equal parts.

Think together

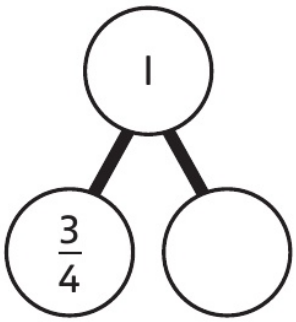
1 Complete the part-whole model for the fraction circle.



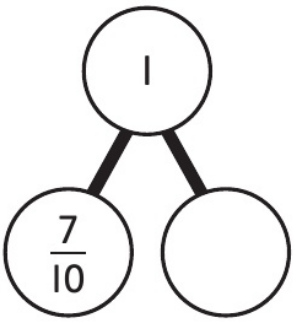


2 Complete the part-whole models.

a)



c)



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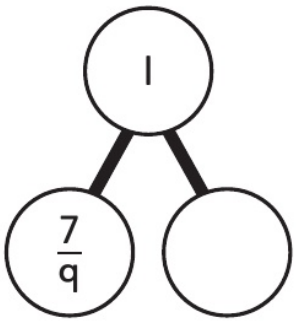
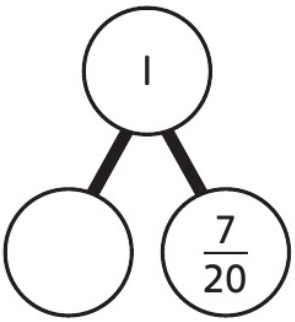


d)



I notice something about the numerators when you add them together.