

Class 3 Home Learning, week beginning 18th May 2020

Maths - Year 3

Summer Term, Week 2  
(w/c 27 April)

Lesson 2

Subtract fractions

Please watch the video before choosing your challenge.

Why not have a go at the reasoning  
and problem solving too?

For all of you who are (or not?!) loving fractions, this  
is the last week for a little while... :-)

Can I subtract fractions?

**Challenge 1**

These pages do not need to be printed out. Please write the short date you do the work and the above question in your maths book, underlining them with a ruler. Remember to write the question number too!


Questions 1-3 mentioned in the video are questions 1-3 in this challenge.

1) Copy and complete the subtractions in your maths book. You do not have to draw the bar models.


Use the bar models to help you.

a)   $\frac{2}{3} - \frac{1}{3} = \square$


The bar model consists of three equal rectangular sections. The first two sections are shaded yellow. The second section is crossed out with a large 'X', indicating it is to be subtracted from the total. The third section is empty.

b)   $\frac{2}{5} - \frac{1}{5} = \square$

The bar model consists of five equal rectangular sections. The first two sections are shaded yellow. The third section is crossed out with a large 'X'. The fourth and fifth sections are empty.

c)   $\frac{3}{5} - \frac{1}{5} = \square$

The bar model consists of five equal rectangular sections. The first three sections are shaded yellow. The fourth and fifth sections are empty.

d)   $\frac{4}{5} - \frac{1}{5} = \square$

The bar model consists of five equal rectangular sections, all of which are empty.

2) Draw a bar model to help you solve this question.

Jack has  $\frac{7}{8}$  of a chocolate bar.

He eats  $\frac{4}{8}$  of the chocolate bar.

What fraction of the chocolate bar does he have left?

3) Copy and complete the subtractions. For b-f, draw bar models to help. I have completed the first one for you.

(Challenge: if you are able to, simplify your answers where possible.)

3. a)  $\frac{7}{10} - \frac{1}{10} = \frac{6}{10}$

What Mrs. Cameron was thinking.

Challenge:  $\frac{6}{10} = \frac{3}{5}$

$\begin{array}{l} \div 2 \\ \hline 6 = 3 \\ \hline 10 = 5 \\ \hline \div 2 \end{array}$ 
  
 Numerator  
 denominator

\* I know that 6 can be divided by 2 equally.  
 I know that 10 can <sup>ALSO</sup> be divided by 2 equally.  
 \* Whatever I FIRST do to the denominator, I ALSO have to do to the numerator.

b)  $\frac{7}{10} - \frac{2}{10} = \square = \square$

e)  $\frac{8}{12} - \frac{4}{12} = \square = \square$

c)  $\frac{7}{10} - \frac{3}{10} = \square = \square$

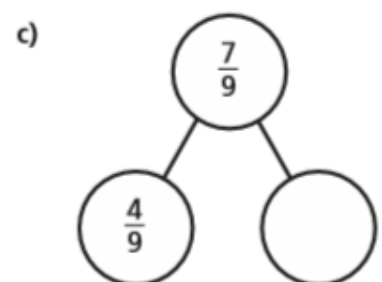
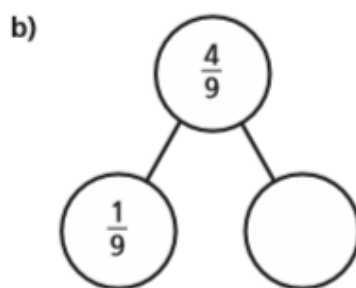
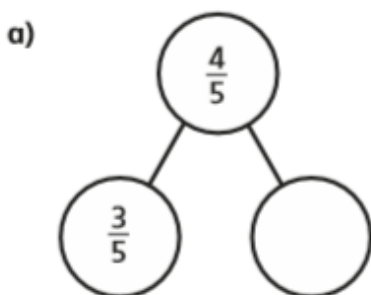
f)  $\frac{9}{12} - \frac{5}{12} = \square = \square$

d)  $\frac{7}{12} - \frac{3}{12} = \square = \square$

g)  $\frac{9}{59} - \frac{5}{59} = \square$

h)  $\frac{13}{127} - \frac{9}{127} = \square$

4) Copy and complete.



Can I subtract fractions?

### Challenge 2

These pages do not need to be printed out. Please write the short date you do the work and the above question in your maths book, underlining them with a ruler. Remember to write the question number too!

Questions 1-3 mentioned in the video are questions 1-3 in Challenge 1.

Question 3 mentioned in the video is question 1 in this challenge.

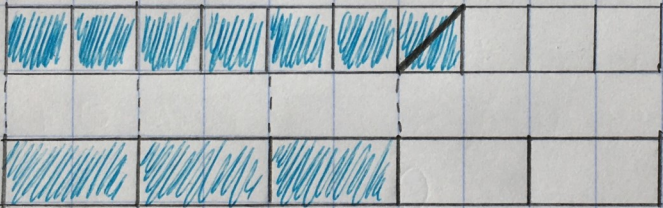
Questions 5-7 in the answers are questions 2-4 in this challenge.

1) Copy and complete the subtractions. For b-f, draw bar models to help. I have completed the first one for you.

**Challenge:** simplify your answers where possible.

3. a)  $\frac{7}{10} - \frac{1}{10} = \frac{6}{10}$

*Challenge:*



$\frac{6}{10} = \frac{3}{5}$

numerator

denominator

\* I know that 6 can be divided by 2 equally.  
I know that 10 can <sup>ALSO</sup> be divided by 2 equally.

\* Whatever I FIRST do to the denominator, I ALSO have to do to the numerator.

b)  $\frac{7}{10} - \frac{2}{10} = \square = \square$

e)  $\frac{8}{12} - \frac{4}{12} = \square = \square$

c)  $\frac{7}{10} - \frac{3}{10} = \square = \square$

f)  $\frac{9}{12} - \frac{5}{12} = \square = \square$

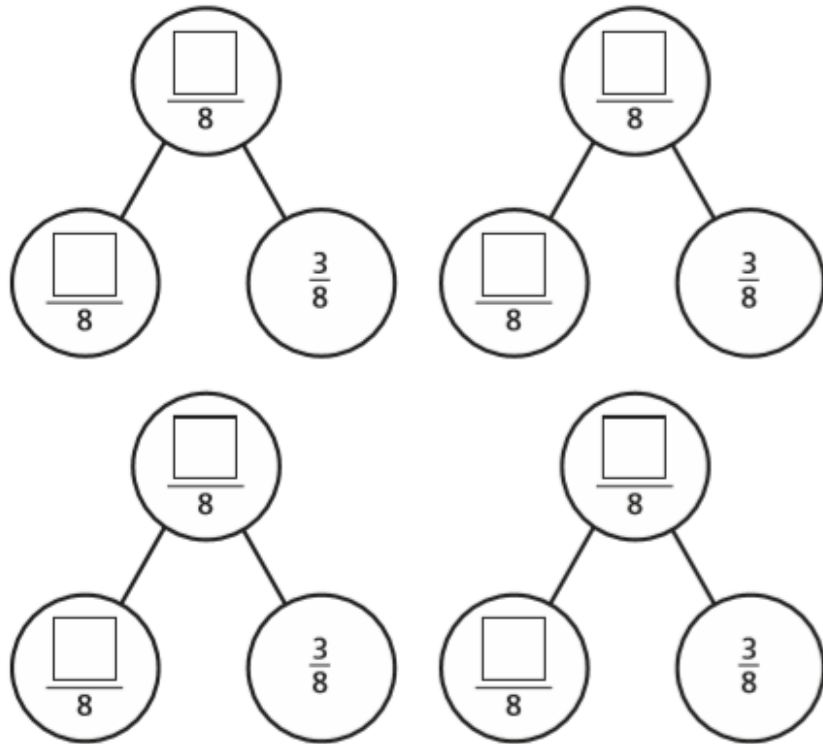
g)  $\frac{9}{59} - \frac{5}{59} = \square$

d)  $\frac{7}{12} - \frac{3}{12} = \square = \square$

h)  $\frac{13}{127} - \frac{9}{127} = \square$

2) Copy and complete.

Complete the part-whole model in four different ways.



3) Draw the bar models in your maths book to help you solve this question.

Kim has read  $\frac{6}{7}$  of her book.

Tom has read  $\frac{2}{7}$  of his book.

a) Shade the bar models to represent this information.



b) How much more has Kim read than Tom?

Kim has read  more of her book than Tom.



4) Copy and complete.

Write the missing numerators.

$$\text{a) } \frac{8}{9} - \frac{\square}{9} = \frac{7}{9}$$

$$\text{e) } \frac{7}{10} - \frac{5}{10} = \frac{1}{10} + \frac{\square}{10}$$

$$\text{b) } \frac{5}{11} - \frac{\square}{11} = \frac{4}{11}$$

$$\text{f) } \frac{\square}{4} - \frac{1}{4} = \frac{1}{4} + \frac{1}{4}$$

$$\text{c) } \frac{8}{9} - \frac{\square}{9} = \frac{3}{9} + \frac{4}{9}$$

$$\text{g) } \frac{\square}{5} - \frac{2}{5} = \frac{1}{5} + \frac{2}{5}$$

$$\text{d) } \frac{7}{9} - \frac{5}{9} = \frac{\square}{9} - \frac{4}{9}$$

$$\text{h) } \frac{4}{5} + \frac{1}{5} = \frac{3}{7} - \frac{2}{7} + \frac{\square}{7}$$

Can I subtract fractions?


**Reasoning and problem solving**

These pages do not need to be printed out. Please write the short date you do the work and the above question in your maths book, underlining them with a ruler. Remember to write the question number too!

1) Find the missing fractions:

$$\frac{7}{7} - \frac{3}{7} = \frac{2}{7} + \frac{\square}{7}$$
$$\frac{\square}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$$

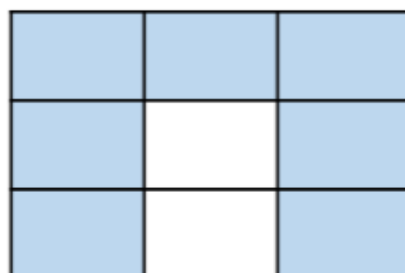
2) Jack and Annie are solving  $\frac{4}{5} - \frac{2}{5}$

Jack's method: 

Annie's method: 

They both say the answer is two fifths.  
Can you explain how they have found their answers?

3) How many fraction addition and subtractions can you make from this model?



# Subtract Fractions

## Reasoning and Problem Solving

Find the missing fractions:

$$\frac{7}{7} - \frac{3}{7} = \frac{2}{7} + \frac{\square}{7}$$

$$\frac{\square}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$$

Jack and Annie are solving  $\frac{4}{5} - \frac{2}{5}$

Jack's method:



Annie's method:



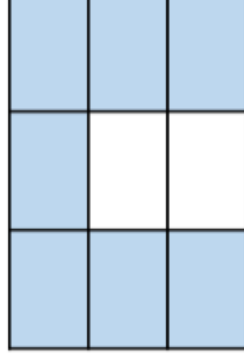
They both say the answer is two fifths.  
Can you explain how they have found their answers?

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

$$\frac{7}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$$

Jack has taken two fifths away.  
Annie has found the difference between four fifths and two fifths.

How many fraction addition and subtractions can you make from this model?



There are lots of calculations children could record. Children may even record calculations where there are more than 2 fractions e.g.  $\frac{3}{9} + \frac{1}{9} + \frac{3}{9} = \frac{7}{9}$ . Children may possibly see the red representing one fraction and the white another also.