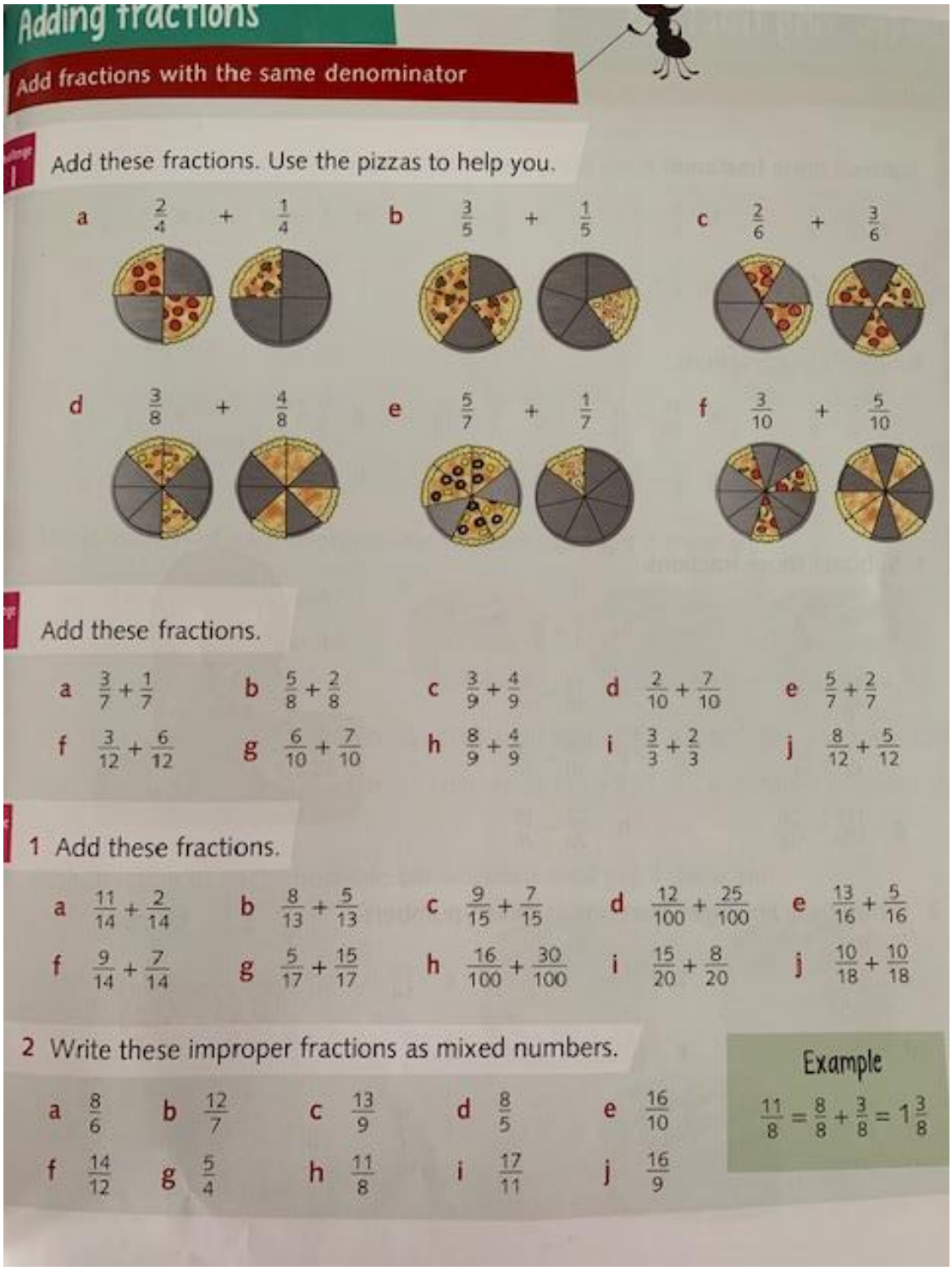
Maths A

Day 1

Can I add fractions?



Adding fractions

Add fractions with the same denominator

Add these fractions. Use the pizzas to help you.

a $\frac{2}{4} + \frac{1}{4}$ b $\frac{3}{5} + \frac{1}{5}$ c $\frac{2}{6} + \frac{3}{6}$

d $\frac{3}{8} + \frac{4}{8}$ e $\frac{5}{7} + \frac{1}{7}$ f $\frac{3}{10} + \frac{5}{10}$

Add these fractions.

a $\frac{3}{7} + \frac{1}{7}$ b $\frac{5}{8} + \frac{2}{8}$ c $\frac{3}{9} + \frac{4}{9}$ d $\frac{2}{10} + \frac{7}{10}$ e $\frac{5}{7} + \frac{2}{7}$

f $\frac{3}{12} + \frac{6}{12}$ g $\frac{6}{10} + \frac{7}{10}$ h $\frac{8}{9} + \frac{4}{9}$ i $\frac{3}{3} + \frac{2}{3}$ j $\frac{8}{12} + \frac{5}{12}$

1 Add these fractions.

a $\frac{11}{14} + \frac{2}{14}$ b $\frac{8}{13} + \frac{5}{13}$ c $\frac{9}{15} + \frac{7}{15}$ d $\frac{12}{100} + \frac{25}{100}$ e $\frac{13}{16} + \frac{5}{16}$

f $\frac{9}{14} + \frac{7}{14}$ g $\frac{5}{17} + \frac{15}{17}$ h $\frac{16}{100} + \frac{30}{100}$ i $\frac{15}{20} + \frac{8}{20}$ j $\frac{10}{18} + \frac{10}{18}$

2 Write these improper fractions as mixed numbers.

a $\frac{8}{6}$ b $\frac{12}{7}$ c $\frac{13}{9}$ d $\frac{8}{5}$ e $\frac{16}{10}$

f $\frac{14}{12}$ g $\frac{5}{4}$ h $\frac{11}{8}$ i $\frac{17}{11}$ j $\frac{16}{9}$

Example

$\frac{11}{8} = \frac{8}{8} + \frac{3}{8} = 1\frac{3}{8}$

Day 2

Can I subtract fractions?

Subtracting fractions

Subtract fractions with the same denominator

Challenge 1 Subtract these fractions.

a $\frac{4}{6} - \frac{1}{6}$ b $\frac{6}{7} - \frac{2}{7}$ c $\frac{8}{8} - \frac{5}{8}$ d $\frac{4}{5} - \frac{3}{5}$ e $\frac{7}{9} - \frac{5}{9}$

f $\frac{8}{10} - \frac{6}{10}$ g $\frac{3}{4} - \frac{1}{4}$ h $\frac{6}{8} - \frac{3}{8}$ i $\frac{8}{10} - \frac{7}{10}$ j $\frac{9}{12} - \frac{5}{12}$

Challenge 2 Subtract these fractions.

a $\frac{8}{9} - \frac{3}{9}$ b $\frac{11}{13} - \frac{8}{13}$ c $\frac{9}{10} - \frac{5}{10}$ d $\frac{7}{7} - \frac{5}{7}$ e $\frac{10}{12} - \frac{3}{12}$

f $\frac{9}{6} - \frac{4}{6}$ g $\frac{7}{5} - \frac{3}{5}$ h $\frac{10}{8} - \frac{6}{8}$ i $\frac{16}{15} - \frac{4}{15}$ j $\frac{11}{9} - \frac{10}{9}$

1 Subtract these fractions.

a $\frac{11}{6} - \frac{4}{6}$ b $\frac{9}{8} - \frac{5}{8}$

c $\frac{15}{13} - \frac{7}{13}$ d $\frac{12}{10} - \frac{8}{10}$

e $\frac{14}{14} - \frac{12}{14}$ f $\frac{18}{10} - \frac{8}{10}$

g $\frac{113}{100} - \frac{20}{100}$ h $\frac{22}{20} - \frac{18}{20}$

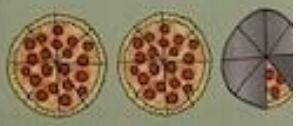
2 Write these improper fractions as mixed numbers.

a $\frac{14}{6}$ b $\frac{13}{5}$ c $\frac{15}{14}$

d $\frac{11}{4}$ e $\frac{26}{10}$ f $\frac{7}{3}$

g $\frac{19}{8}$ h $\frac{9}{4}$ i $\frac{16}{7}$

Example



$\frac{17}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8} = 2\frac{1}{8}$

Day 3:

Subtracting Fractions from Whole Numbers

1. Work out the answers and complete the calculations.

a. $\frac{5}{5} - \frac{3}{5} = \frac{\square}{5}$ b. $\frac{5}{5} - \frac{\square}{5} = \frac{3}{5}$ c. $\frac{9}{5} - \frac{5}{5} = \frac{\square}{5}$

2. Use strips of paper to calculate:

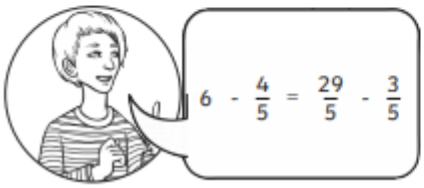
a. $1 - \frac{3}{4} = \square$ b. $3 - \frac{1}{2} = \square$ a. $2 - \frac{2}{9} = \square$

3. Use these digit cards to complete the subtraction.

1	2	4	6	6

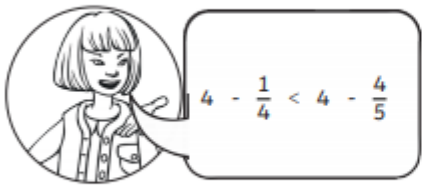
$\square - \frac{\square}{\square} = \frac{\square}{\square}$

4. Amir says that:



Is he correct? Explain your answer below.

Ella says that:



Is she correct? Explain your answer below.

Day 4:

Adding and subtracting fractions 3

Practise

1) 8/11 + 5/11
2) 5/9 + 2/9
3) 4/5 – 1/5
4) 3/10 + 4/10
5) 7/12 – 3/12
6) 3/8 + 1/8

Fluency

Fill in the missing fractions

1) 3/7 + ?/? = 1
2) ?/? – 2/6 = 1/6

Draw diagrams to represent the following problems:

3) 6/10 + 3/10
4) 4/5 + 3/5

Reasoning

1) The answer to a question is 4/9; what is the question?
2) True or false?
   5/12 + 3/12 = 8/12
   5/12 + 3/12 = 8/24
   5/12 + 3/12 = 4/6

Explain your reasoning.

Problem solving

1) Joanne chooses two fractions and subtracts the smaller one from the bigger one. Her answer was 1/6. What fractions could Caroline have chosen? How many ways can you find to do it?

2) Find three ways to complete each calculation:
   ?/? + ?/? = 8/9
   ?/? - ?/? = 8/9

Day 5:

g

Rosie and Whitney are solving:

$$\frac{4}{7}+\frac{2}{7}$$

Rosie says,

The answer is $\frac{6}{7}$

Whitney says,

The answer is $\frac{6}{14}$

Who do you agree with?
Explain why.

Alex is adding fractions.

$$\frac{3}{9}+\frac{2}{9}=\frac{5}{18}$$

Is she correct? Explain why.

How many different ways can you find to solve the calculation?

$$\frac{\square}{\square}+\frac{\square}{\square}=\frac{11}{9}$$

Mo and Teddy share these chocolates.

They both eat an odd number of chocolates.
Complete this number sentence to show what fraction of the chocolates they each could have eaten.

$$\frac{\square}{\square}+\frac{\square}{\square}=\frac{12}{12}$$

Mo and Teddy are solving:

$$\frac{6}{13}+\frac{5}{13}+\frac{7}{13}$$

Mo

The answer is 1 and $\frac{5}{13}$

Teddy

The answer is $\frac{18}{13}$

Who do you agree with?
Explain why.

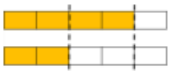
Find the missing fractions:

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

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

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?

Match the number stories to the correct calculations.

Teddy eats $\frac{7}{8}$ of a pizza. Dora eats $\frac{4}{8}$ How much do they eat altogether?	$\frac{7}{8} + \frac{3}{8} = -$
Teddy eats $\frac{7}{8}$ of a pizza. Dora eats $\frac{4}{8}$ less. How much do they eat altogether?	$\frac{7}{8} + \frac{4}{8} = -$
Teddy eats $\frac{7}{8}$ of a pizza. Dora eats $\frac{3}{8}$ less. How much does Dora eat?	$\frac{7}{8} - \frac{3}{8} = -$

How many different ways can you find to solve the calculation?

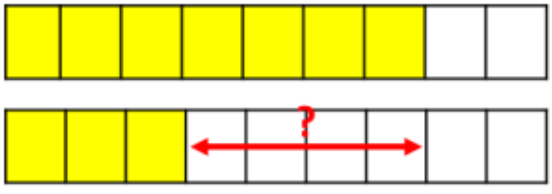
$\frac{\square}{7} - \frac{3}{7} = \frac{\square}{7} + \frac{\square}{7}$

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

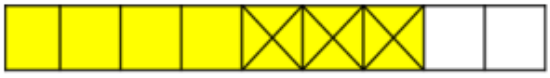
Annie and Amir are working out the answer to this problem.

$\frac{7}{9} - \frac{3}{9}$

Annie uses this model.



Amir uses this model.



Which model is correct? Explain why.

Can you write a number story for each model?

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