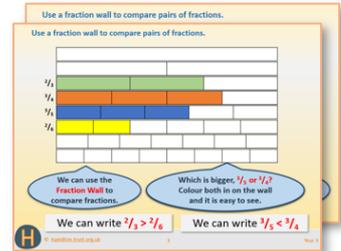


Year 4: Week 4, Day 3

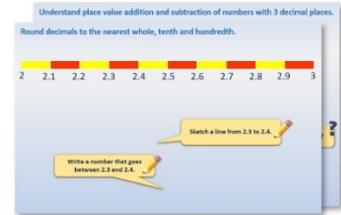
Add and subtract fractions

Each day covers one maths topic. It should take you about 1 hour or just a little more.

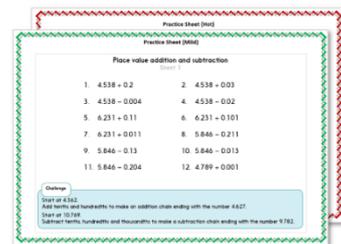
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



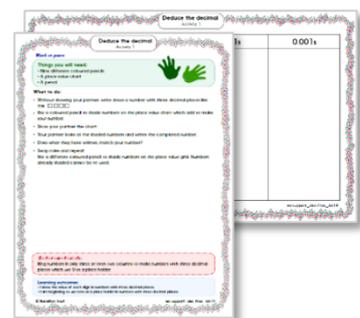
OR start by carefully reading through the **Learning Reminders**.



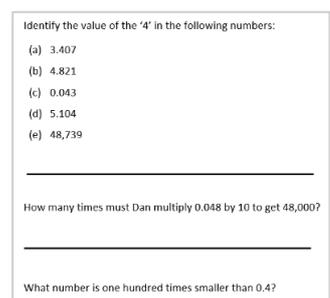
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



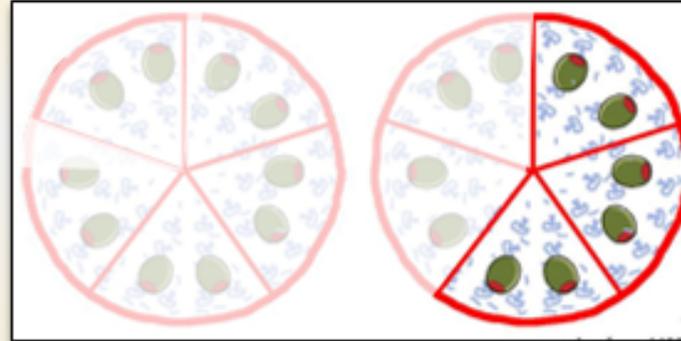
Learning Reminders

Add and subtract fractions with the same denominator.

These pizzas are divided into $\frac{1}{5}$ s.

First $\frac{4}{5}$ are eaten (4 slices).

Then another $\frac{3}{5}$ (3 slices).



How many $\frac{1}{5}$ s have been eaten altogether?

$$\frac{4}{5} + \frac{3}{5} = \frac{7}{5}$$

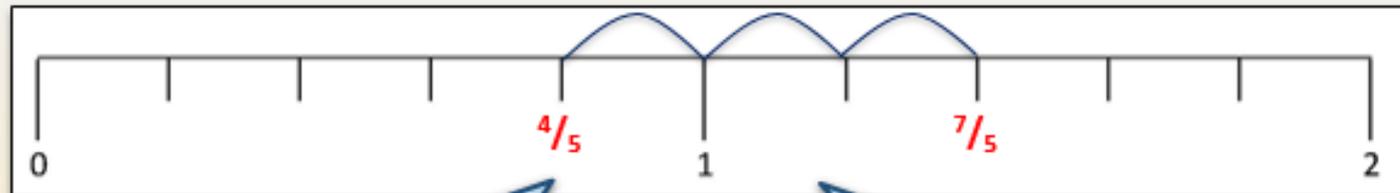
How else can we write $\frac{7}{5}$?

As a mixed number:
 $1\frac{2}{5}$

Learning Reminders

Add and subtract fractions with the same denominator.

We can also show this on a **fifths** numberline.



Mark on $\frac{4}{5}$.

Count on $\frac{3}{5}$.

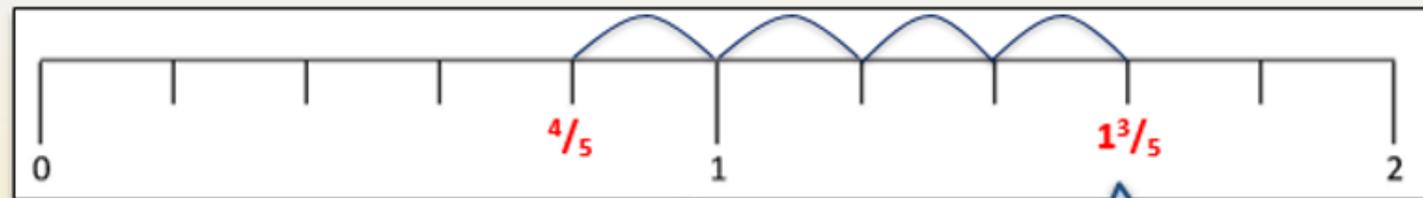
$$\frac{4}{5} + \frac{3}{5} = \frac{7}{5} \text{ or } 1\frac{2}{5}.$$

Learning Reminders

Add and subtract fractions with the same denominator.

We can also use the numberline to subtract.

Let's try $1\frac{3}{5} - \frac{4}{5}$.



Step 2

Count back $\frac{4}{5}$.

Step 1

Mark on $1\frac{3}{5}$.

$$1\frac{3}{5} - \frac{4}{5} = \frac{4}{5}$$

Practice Sheet Mild

Adding and subtracting fractions

Use fraction lines to help you work out the answers to these additions and subtractions.

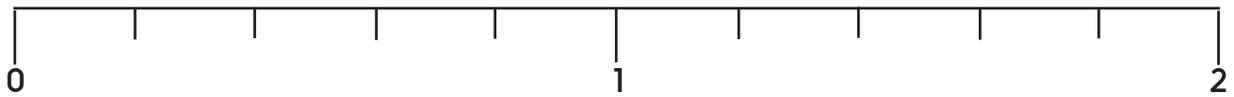


1. $\frac{3}{4} + \frac{2}{4} =$

3. $\frac{3}{4} - \frac{1}{4} =$

2. $\frac{3}{4} + \frac{3}{4} =$

4. $1\frac{1}{4} - \frac{3}{4} =$



5. $\frac{3}{5} + \frac{1}{5} =$

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

6. $\frac{3}{5} + \frac{2}{5} =$

10. $1\frac{4}{5} - \frac{3}{5} =$

7. $\frac{4}{5} + \frac{2}{5} =$

11. $1\frac{1}{5} - \frac{2}{5} =$

8. $1\frac{2}{5} + \frac{2}{5} =$

12. $1\frac{2}{5} - \frac{4}{5} =$

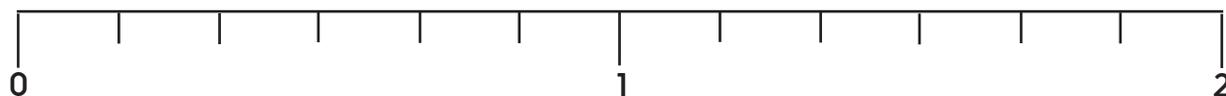
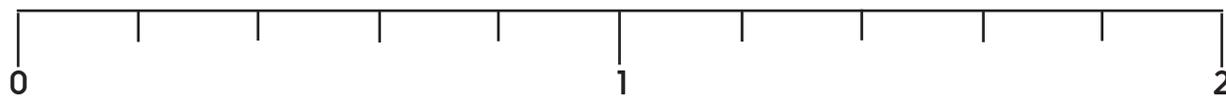
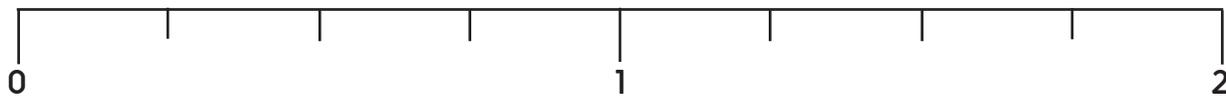
Challenge

Write your own subtractions with an answer of $\frac{4}{5}$.

Practice Sheet Hot

Adding and subtracting fractions

Use fraction lines to help you work out the answers to these additions and subtractions.



$$\frac{3}{4} + \frac{3}{4} = \boxed{}$$

$$\frac{5}{6} - \frac{2}{6} = \boxed{}$$

$$\frac{3}{5} + \frac{2}{5} = \boxed{}$$

$$\frac{4}{5} - \frac{2}{5} = \boxed{}$$

$$\frac{5}{6} + \frac{1}{6} = \boxed{}$$

$$\frac{3}{4} - \frac{1}{4} = \boxed{}$$

$$\frac{4}{5} + \frac{2}{5} = \boxed{}$$

$$1\frac{1}{5} - \frac{3}{5} = \boxed{}$$

$$1\frac{1}{4} + \frac{3}{4} = \boxed{}$$

$$1\frac{1}{4} - \frac{3}{4} = \boxed{}$$

$$\frac{5}{6} + \frac{2}{6} = \boxed{}$$

$$1\frac{2}{6} - \frac{4}{6} = \boxed{}$$

$$\frac{4}{5} + \frac{4}{5} = \boxed{}$$

$$1\frac{3}{6} - \frac{5}{6} = \boxed{}$$

$$\frac{2}{4} + 1\frac{3}{6} = \boxed{}$$

$$1\frac{5}{6} - 1\frac{1}{2} = \boxed{}$$

Challenge

Work with a partner to make up at least four new additions and subtractions.

Practice Sheet Answers

Adding and subtracting fractions (mild)

1. $\frac{3}{4} + \frac{2}{4} = 1\frac{1}{4}$

2. $\frac{3}{4} + \frac{3}{4} = 1\frac{1}{2}$

3. $\frac{3}{4} - \frac{1}{4} = \frac{1}{2}$

4. $1\frac{1}{4} - \frac{3}{4} = \frac{1}{2}$

5. $\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$

6. $\frac{3}{5} + \frac{2}{5} = 1$

7. $\frac{4}{5} + \frac{2}{5} = 1\frac{1}{5}$

8. $1\frac{2}{5} + \frac{2}{5} = 1\frac{4}{5}$

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

10. $1\frac{4}{5} - \frac{3}{5} = 1\frac{1}{5}$

11. $1\frac{1}{5} - \frac{2}{5} = \frac{4}{5}$

12. $1\frac{2}{5} - \frac{4}{5} = \frac{3}{5}$

Challenge

E.g. $1\frac{2}{5} - \frac{3}{5}$, $1\frac{3}{5} - \frac{4}{5}$

Adding and subtracting fractions (hot)

$$\frac{3}{4} + \frac{3}{4} = 1\frac{1}{2}$$

$$\frac{3}{5} + \frac{2}{5} = 1$$

$$\frac{5}{6} + \frac{1}{6} = 1$$

$$\frac{4}{5} + \frac{2}{5} = 1\frac{1}{5}$$

$$1\frac{1}{4} + \frac{3}{4} = 2$$

$$\frac{5}{6} + \frac{2}{6} = 1\frac{1}{6}$$

$$\frac{4}{5} + \frac{4}{5} = 1\frac{3}{5}$$

$$\frac{2}{4} + 1\frac{3}{6} = 2$$

$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$$

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

$$\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$$

$$1\frac{1}{5} - \frac{3}{5} = \frac{3}{5}$$

$$1\frac{1}{4} - \frac{3}{4} = \frac{2}{4} = \frac{1}{2}$$

$$1\frac{2}{6} - \frac{4}{6} = \frac{4}{6} = \frac{2}{3}$$

$$1\frac{3}{6} - \frac{5}{6} = \frac{4}{6} = \frac{2}{3}$$

$$1\frac{5}{6} - 1\frac{3}{6} = \frac{2}{6} = \frac{1}{3}$$

A Bit Stuck? Wall-to-wall fractions

Work in pairs

Things you will need:

- A pencil
- A fraction wall



What to do:

- Fill in the missing fractions in these sums.

1	
$\frac{1}{2}$	

$$\frac{1}{2} + \square = 1$$

1	
$\frac{1}{3}$	

$$\frac{1}{3} + \square = 1$$

1	
$\frac{3}{4}$	

$$\frac{3}{4} + \square = 1$$

1	
$\frac{4}{5}$	

$$\frac{4}{5} + \square = 1$$

1	
$\frac{7}{10}$	

$$\frac{7}{10} + \square = 1$$

1	
$\frac{5}{8}$	

$$\frac{5}{8} + \square = 1$$

1	
$\frac{4}{7}$	

$$\frac{4}{7} + \square = 1$$

1	
$\frac{1}{6}$	

$$\frac{1}{6} + \square = 1$$

S-t-r-e-t-c-h:

Write an addition of fractions with different denominators (numbers on the bottom), e.g. $\frac{1}{2} + \square = 1$.

Learning outcomes:

- I know how many of each fraction make a whole and can use this to write missing fractions in sums with an answer of 1.
- I am beginning to write my own fraction sums.

A Bit Stuck?
Wall-to-wall fractions

1											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$			
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{6}$											
$\frac{1}{7}$											
$\frac{1}{8}$											
$\frac{1}{9}$											
$\frac{1}{10}$											
$\frac{1}{11}$											
$\frac{1}{12}$											

Check your understanding

Questions

Some pizzas are divided into sixths.

Write the fraction of a pizza that each child ate.

Edward: 2 slices

Bella: 3 slices

Jake: 5 slices

Charlie: 1 slice

Charlie and Bella shared a pizza, so what fraction was left?

Jake and Edward shared 2 pizzas, so what fraction was left?

Add $\frac{1}{2}$ to each of these fractions: $\frac{3}{4}$, $\frac{1}{6}$, $\frac{3}{10}$

(HINT: Write $\frac{1}{2}$ as an equivalent fraction in each case...)

Fold here to hide answers

Check your understanding

Answers

Some pizzas are divided into sixths.

Write the fraction of a pizza that each child ate.

Edward: 2 slices $\frac{2}{6}$ or $\frac{1}{3}$

Bella: 3 slices $\frac{3}{6}$ or $\frac{1}{2}$

Jake: 5 slices $\frac{5}{6}$

Charlie: 1 slice $\frac{1}{6}$

Charlie and Bella shared a pizza, so what fraction was left? $\frac{2}{6}$ or $\frac{1}{3}$

An answer of $\frac{8}{12}$ suggests children are incorrectly adding the numerator and denominator of the fractions. An answer of $\frac{4}{6}$ may suggest that the slices eaten have been added but then not subtracted from the whole pizza.

Jake and Edward shared 2 pizzas, so what fraction was left? $\frac{5}{6}$

See above for the sort of errors that can arise, in each case use a visual model of the pizzas to help unpick the problems.

Add $\frac{1}{2}$ to each of these fractions: $\frac{3}{4}$, $\frac{1}{6}$, $\frac{3}{10}$

(HINT: Write $\frac{1}{2}$ as an equivalent fraction in each case...)

$1\frac{1}{4}$, $\frac{2}{3}$ and $\frac{4}{5}$ respectively.