23.2.21 Fractions

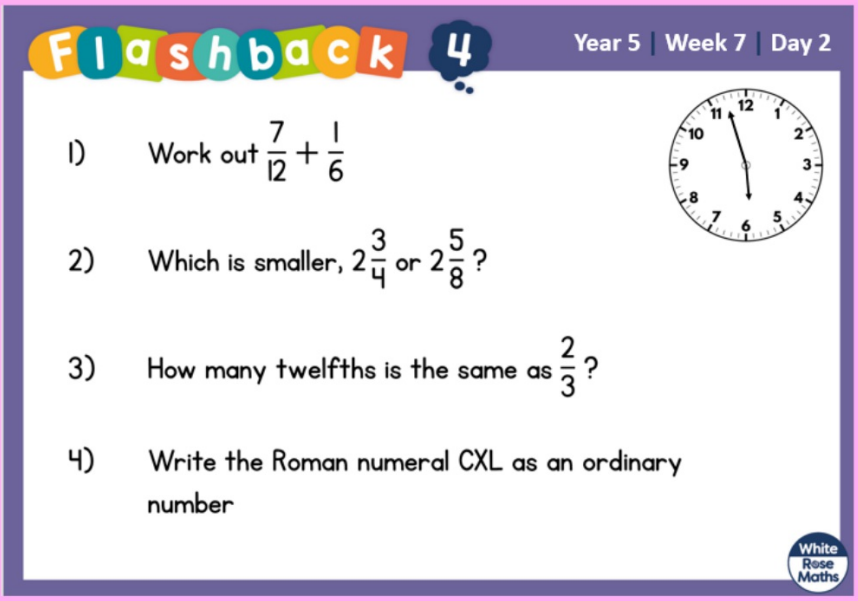
Learning Objective:
We are learning to subtract mixed numbers.

I will be successful if:

- I can use my knowledge of multiples
- I can use the bar models and number lines to support my understanding.
- I can find equivalents to help subtract proper fractions from mixed numbers.

Key Vocabulary

fractions as part of a whole
equal parts
equivalents
representations
numerator
denominator
non-unit and unit fractions
improper fractions
mixed number
multiples
addition
subtraction
difference



Challenge - simplify these fractions to their lowest form

5) $\frac{2}{8}$

7) $\frac{45}{50}$

6) $\frac{16}{40}$

8) $\frac{18}{30}$

Flashback 4

Year 5 | Week 7 | Day 2

1) Work out $\frac{7}{12} + \frac{1}{6}$ $\frac{9}{12}$ or $\frac{3}{4}$

2) Which is smaller, $2\frac{3}{4}$ or $2\frac{5}{8}$? $2\frac{5}{8}$

3) How many twelfths is the same as $\frac{2}{3}$? 8

4) Write the Roman numeral CXL as an ordinary number 140

White Rose Maths

Challenge - simplify these fractions to their lowest form

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

6) $\frac{2}{5}$

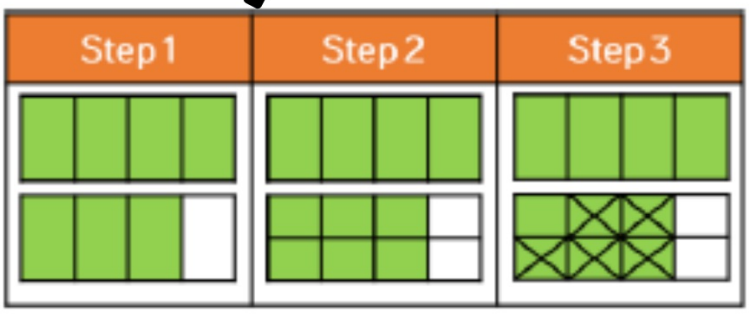
7) $\frac{9}{10}$

8) $\frac{3}{5}$

Today, we are going to look at two different visual representations to help us subtract mixed number fractions.

- Bar model subtraction
- Number line subtraction

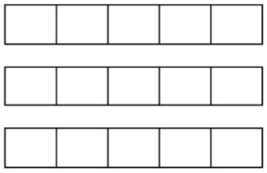
First, you need to convert the mixed fraction to an equivalent fraction.



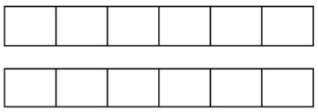
$$1\frac{3}{4} - \frac{5}{8} = 1\frac{1}{8}$$

Use this method to help you solve:

$2\frac{3}{5} - \frac{3}{10}$

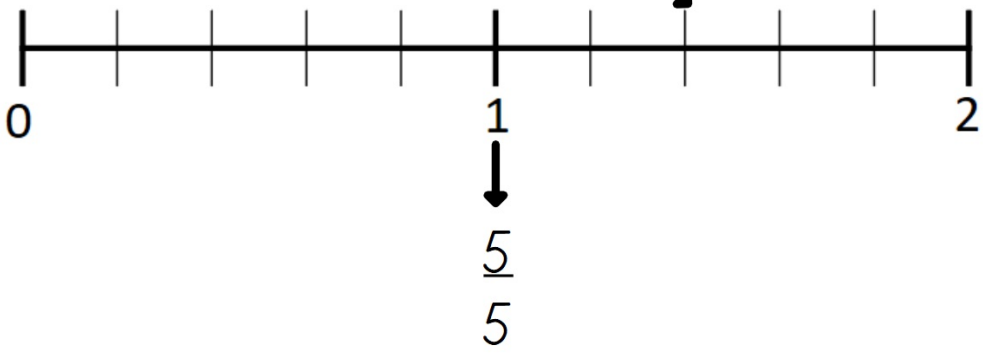


$1\frac{5}{6} - \frac{7}{12}$



How could you use a number line to help you with this subtraction calculation?

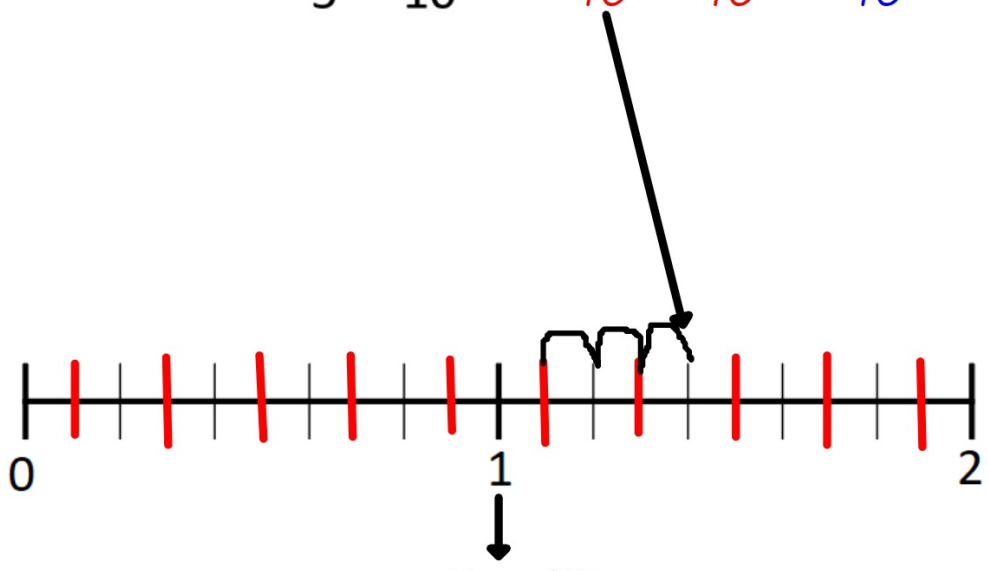
$\frac{7}{5} - \frac{3}{10} =$



$\frac{5}{5}$

Answers

$\frac{7}{5} - \frac{3}{10} = \frac{14}{10} - \frac{3}{10} = \frac{11}{10} = 1\frac{1}{10}$



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

Use the number line method to solve these subtraction calculations.

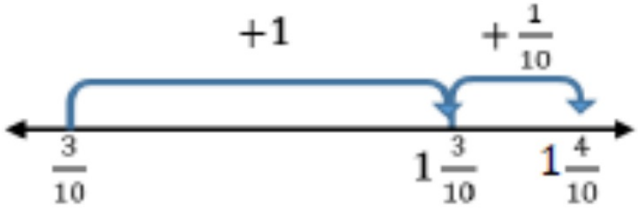
$1\frac{2}{3} - \frac{5}{6}$

$2\frac{3}{8} - \frac{11}{16}$

You can also use a number line method to help you find the difference between two fractions.

What's the difference between $1\frac{2}{5}$ and $\frac{3}{10}$?

$$1\frac{2}{5} = 1\frac{4}{10}$$



$= 1\frac{1}{10}$

Use a number line to find the difference between:

$3\frac{5}{6}$ and $\frac{1}{12}$

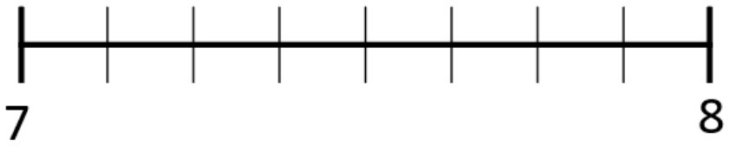
$2\frac{7}{9}$ and $\frac{11}{18}$

Use the number line to help you solve this problem.

Alex cycles for 8 km.

Mo cycles for $7\frac{5}{8}$ km.

How much further does Alex cycle than Mo?

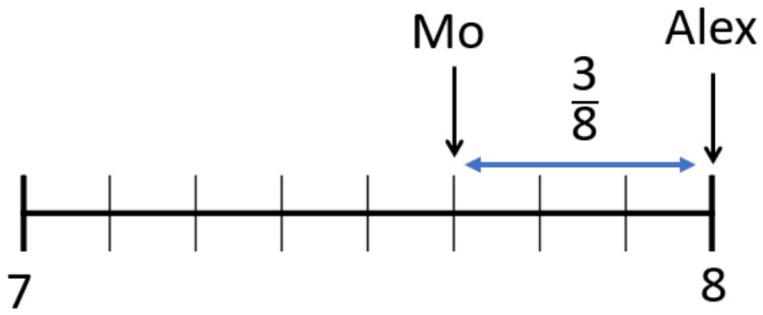


Answer

Alex cycles for 8 km.

Mo cycles for $7\frac{5}{8}$ km.

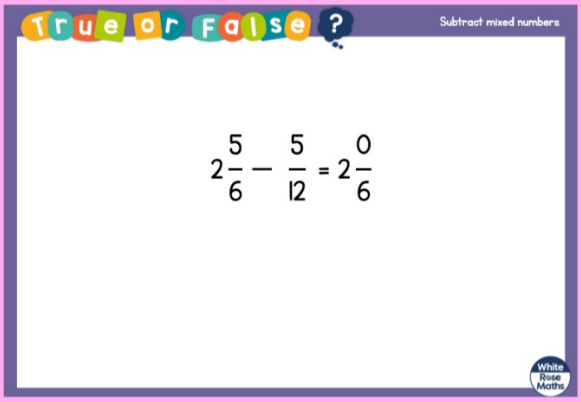
How much further does Alex cycle than Mo? $\frac{3}{8}$ km



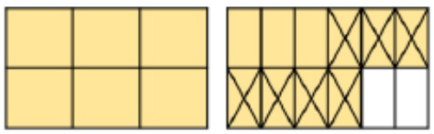
23.2.21

Have a go at the questions on the sheet attached.

Reasoning challenges



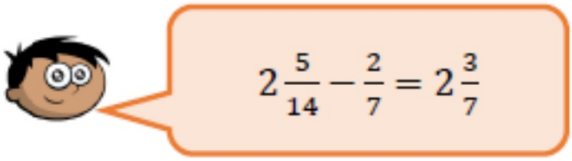
Here is Rosie's method.
What is the calculation?



Can you find more than one answer?
Why is there more than one answer?

Amir is attempting to solve $2\frac{5}{14} - \frac{2}{7}$

Here is his working out:



Do you agree with Amir?
Explain your answer.