SUBTRACT MIXED NUMBERS

White Rose MATHS

Subtract mixed numbers

Starter

1	$7432 - 6549 =$
2	$65 \times 54 =$
3	$\frac{3}{4} + \frac{2}{3} =$
4	$\frac{12}{15} - \frac{2}{5} =$
5	$862 \div 25 =$
6	$6 - 9 =$
7	1×13.78
8	11% of 2200 =
9	$4^3 + 2^2 =$
10	$1445 \div 23 =$
11	$\frac{8}{9} \times 5 =$
12	$\frac{4}{6} \div 5 =$
13	$20 + 25 \div 5 =$
14	$50067 + 2098 =$
15	$220 \times 400 =$

Subtract mixed numbers

Starter - Answers

1	$7432 - 6549 =$	883
2	$65 \times 54 =$	3510
3	$\frac{3}{4} + \frac{2}{3} =$	$\frac{17}{12}$ or $1\frac{5}{12}$
4	$\frac{12}{15} - \frac{2}{5} =$	$\frac{6}{15}$ or $\frac{2}{5}$
5	$862 \div 25 =$	34 r12
6	$6 - 9 =$	-3
7	1×13.78	13.78
8	11% of 2200 =	242
9	$4^3 + 2^2 =$	68
10	$1445 \div 23 =$	62 r19

11	$\frac{8}{9} \times 5 =$	$\frac{40}{9}$ or $4\frac{4}{9}$
12	$\frac{4}{6} \div 5 =$	$\frac{4}{30}$
13	$20 + 25 \div 5 =$	25
14	$50067 + 2098 =$	52,165
15	$220 \times 400 =$	88,000

1) Convert these mixed numbers to improper fractions:

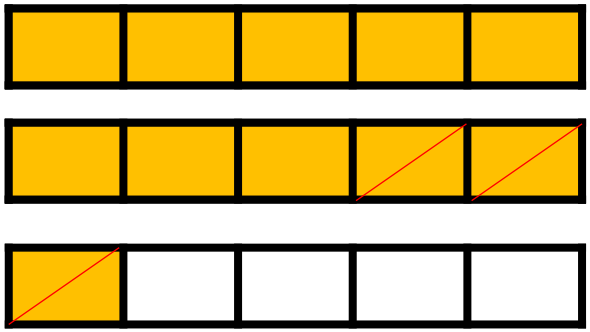
$5\frac{3}{5}$ $3\frac{8}{9}$

2) Convert these improper fractions to mixed numbers:

$\frac{102}{10}$ $\frac{124}{12}$

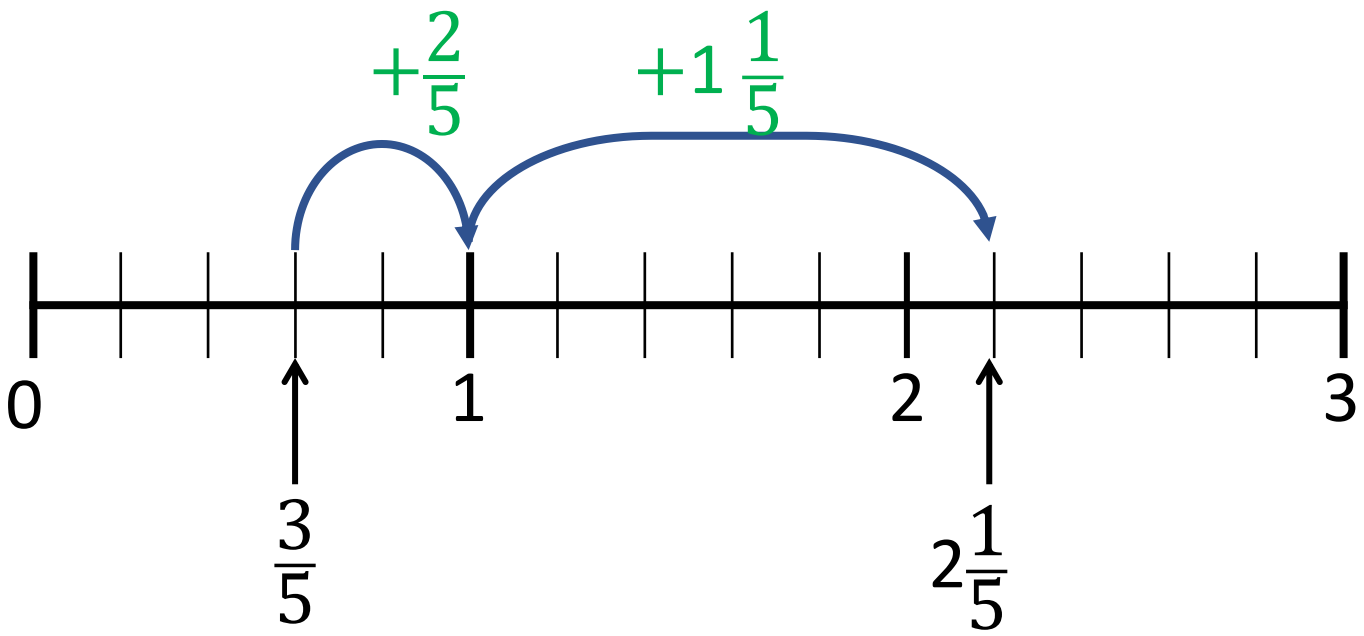
I do

$$2\frac{1}{5} - \frac{3}{5} = \frac{8}{5} \text{ or } 1\frac{3}{5}$$



Have a think

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

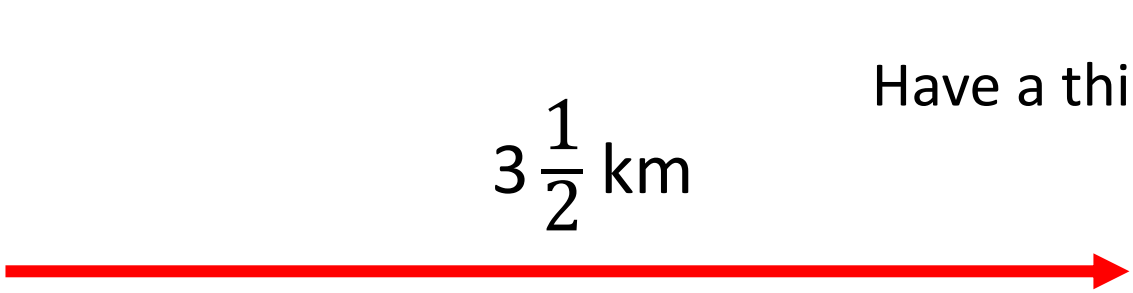


You can also use a number line to count on.

You do

A race is $3\frac{1}{2}$ km in length.

Have a think



Annie has run $1\frac{1}{8}$ km so far.

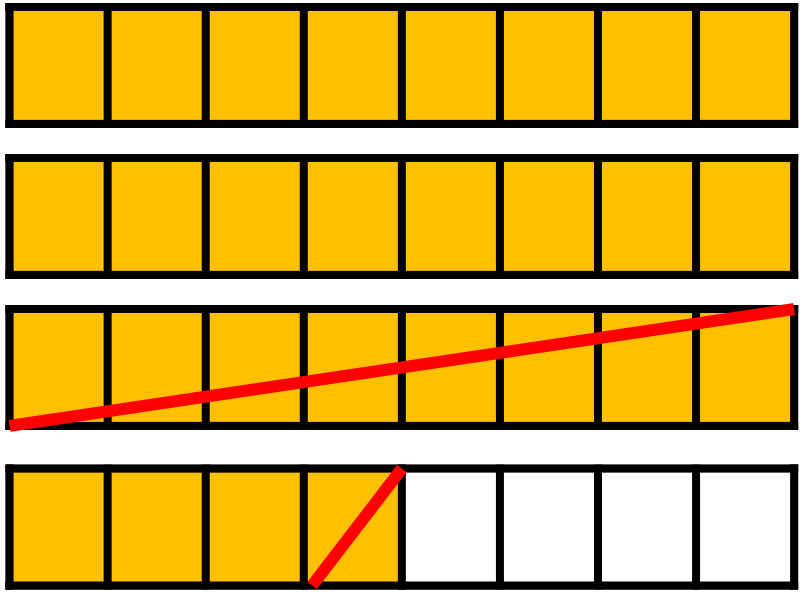
How much further does she have to run?

$$3\frac{1}{2} - 1\frac{1}{8} = 2\frac{3}{8}\text{ km}$$

$3\frac{1}{2} - 1\frac{1}{8}$

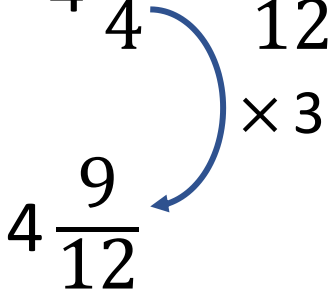
$\times 4$

$3\frac{4}{8}$



I do

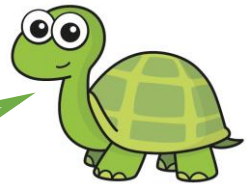
Calculate $4\frac{3}{4} - \frac{7}{12}$



Have a think

$$4\frac{9}{12} - \frac{7}{12} = 4\frac{2}{12} = 4\frac{1}{6}$$

You do



I don't think you can calculate $2\frac{1}{4} - \frac{5}{12}$

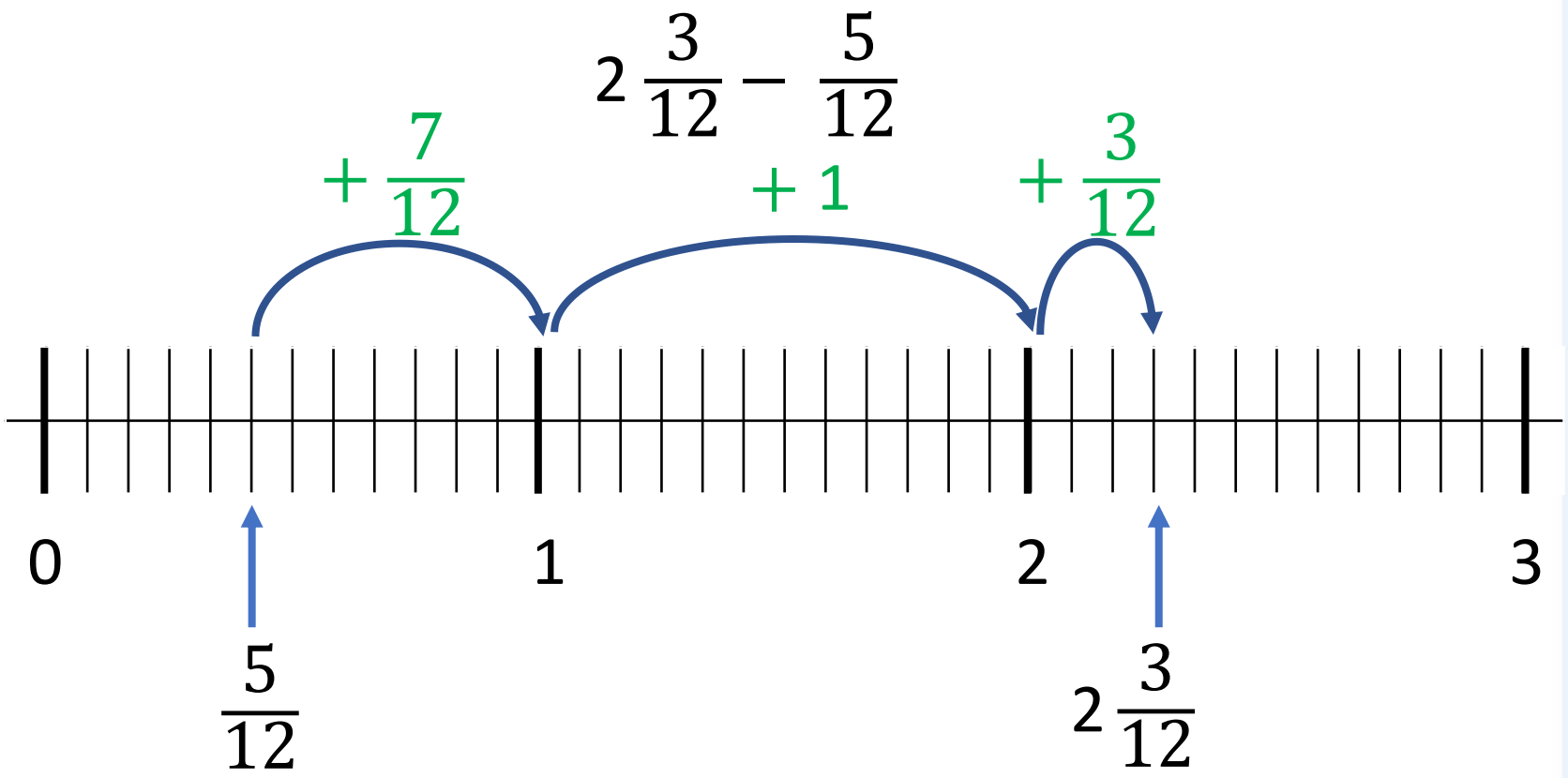
$$2\frac{1}{4} - \frac{5}{12}$$

$\times 3$

$$2\frac{3}{12}$$

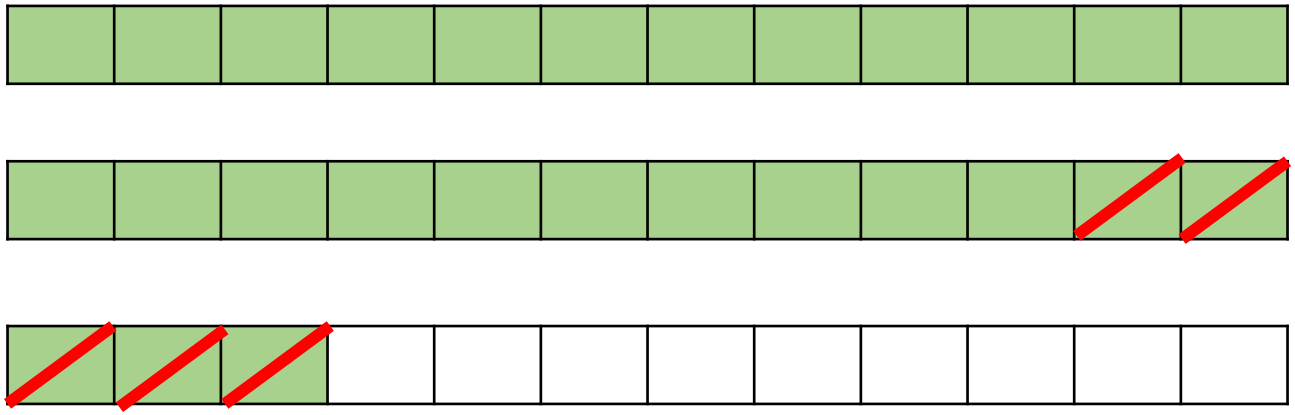
$$2\frac{3}{12} - \frac{5}{12}$$

Have a think



$$\frac{7}{12} + \frac{3}{12} + 1 = 1\frac{10}{12} = 1\frac{5}{6}$$

$$2\frac{3}{12} - \frac{5}{12}$$



$$2\frac{3}{12} - \frac{5}{12}$$

$$\frac{3}{12} \quad \frac{2}{12}$$

$$2\frac{3}{12} - \frac{3}{12} = 2$$

$$2 - \frac{2}{12} = 1\frac{10}{12} = 1\frac{5}{6}$$

Calculate $2\frac{1}{7} - 1\frac{1}{3}$

$\times 3$ and $\times 7$

$2\frac{3}{21} - 1\frac{7}{21}$

What is the first thing you need to do?

Find a common denominator.

Multiples of 7: 7, 14, 21, 28, 35, 42

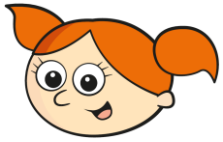
Multiples of 3: 3, 6, 9, 12, 15, 18, 21

Have a think

Discussion

Have a think

$2\frac{3}{21} - 1\frac{7}{21}$

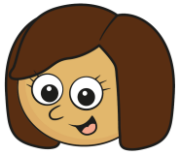


Alex

I'm going to use a number line and count on.

Amir

I'm going to convert both fractions to improper fractions and then subtract.



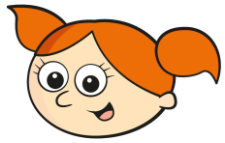
Kim

I'm going to partition $\frac{7}{21}$ into $\frac{3}{21}$ and $\frac{4}{21}$ to help me.

Calculate $2\frac{3}{21} - 1\frac{7}{21}$ using each method.

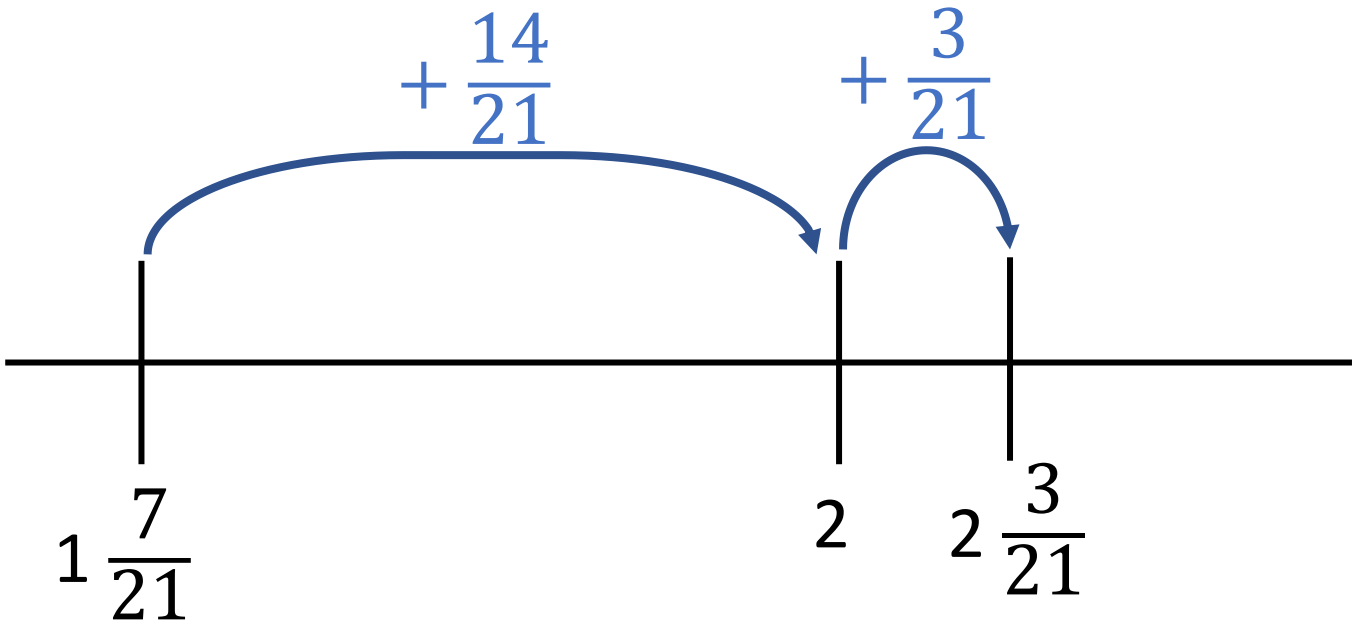
Which method do you prefer?

$$2\frac{3}{21} - 1\frac{7}{21} = \frac{17}{21}$$



Alex

I'm going to use a number line and count on.



$$2\frac{3}{21} - 1\frac{7}{21} = \frac{17}{21}$$

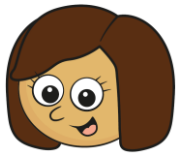
Amir

I'm going to convert both fractions to improper fractions and then subtract.

$$\frac{45}{21} - \frac{28}{21}$$

$$2\frac{3}{21} - 1\frac{7}{21}$$

I'm going to partition $\frac{7}{21}$ into $\frac{3}{21}$ and $\frac{4}{21}$ to help me.



Kim

$$2\frac{3}{21} - 1\frac{7}{21}$$

$$\frac{3}{21} \quad \frac{4}{21}$$

$$2\frac{3}{21} - 1\frac{3}{21} = 1$$

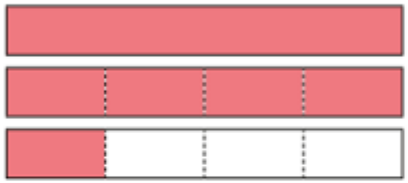
$$1 - \frac{4}{21} = \frac{17}{21}$$

Our work

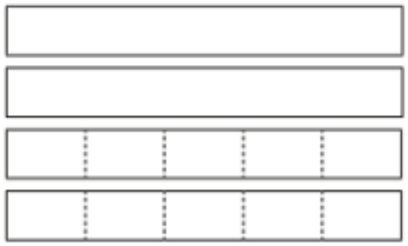
Subtract mixed numbers FYB

Use the bar models to help you complete the subtractions.

a) $2\frac{1}{4} - \frac{3}{4} =$ ☐



b) $3\frac{2}{5} - \frac{3}{5} =$ ☐



Complete the calculations.

a) $5\frac{3}{4} - 1\frac{3}{8} =$ ☐

b) $4\frac{7}{20} - 2\frac{7}{10} =$ ☐

c) $6\frac{1}{5} - 1\frac{3}{4} =$ ☐

d) $6\frac{5}{6} - 4\frac{2}{9} =$ ☐

Subtract mixed numbers Silver

True or False?

To subtract mixed numbers, you can exchange. Explain your answer.

Subtract mixed numbers Gold

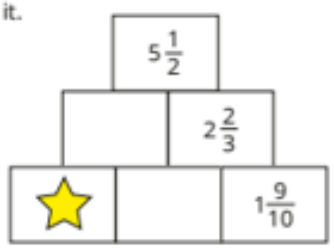
Filip has $4\frac{2}{5}$ kg of potatoes.

He has $2\frac{3}{4}$ kg of carrots.

How much heavier are the potatoes than the carrots?

Subtract mixed numbers Platinum

In this addition pyramid, each number is the sum of the two numbers below it.

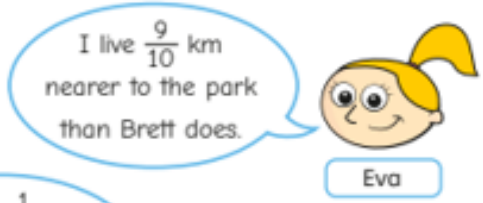


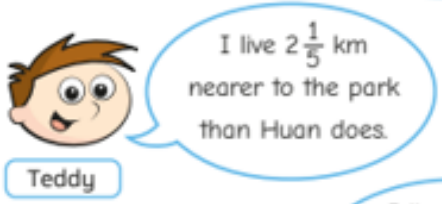
Work out the value of the star.

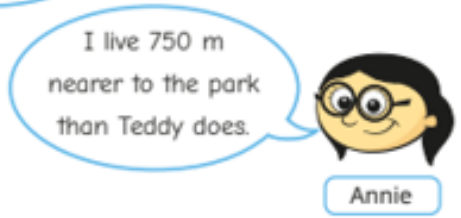
Subtract mixed numbers Challenge

The table shows the distance each child lives from the park.

Name	Annie	Brett	Teddy	Huan	Eva
Distance from park		$3\frac{1}{4}$ km		$4\frac{1}{10}$ km	

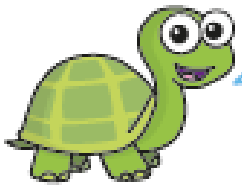






Complete the table.

Extra challenge

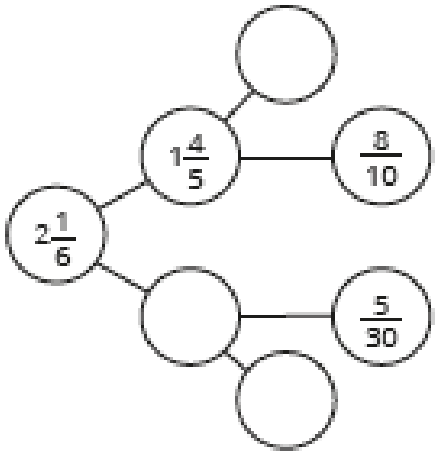


I cannot work out $3\frac{1}{3} - 1\frac{1}{2}$ because $\frac{1}{2}$ is greater than $\frac{1}{3}$

Is Tiny correct?

Explain your answer.

Complete the part-whole model.



On the number line, C is $3\frac{2}{3}$ more than B.

What is the value of B?

What is the difference between A and B?