Year 4 Maths, 3/2/21

• Look at this number line. Can you fill in the gaps? Use the pictures underneath the number line to help you.



What steps are they counting in?

Would it be possible to write the answers in more than one way?

Recall answers

$2\frac{1}{2}$ 1/2 3 $1\frac{1}{2}$ 2 $4\frac{1}{2}$ 3 1/2 4 Are the numbers ascending or descending? They are getting bigger / going up / **ascending**.

What steps are they counting in? Halves

Would it be possible to write the answers in more than one way? All the numbers greater than one could be written either as improper fractions or mixed numbers. For example, this is the same as seven halves.

Learning objective: I can count in fractions

- SOME WILL EVEN count in fractions in sequences with uneven steps
- SOME will give answers as improper fractions and mixed numbers
- MOST will count in fractions using number lines
- ALL will understand that it is possible to count in fractions

Guided practice

- When we count in fractions, the denominator of the fraction tells us how many parts there are between the whole numbers.
- For example, to count in thirds:



The denominator is 3, so there will
be 3 parts between each whole number.



Can you fill in the gaps on this number line? Is there more than one way to do this?

Guided practice answers



Any fraction with the same number as its numerator and denominator is equal to one whole.

These fractions have a bigger numerator than denominator. They are greater than one whole. They are improper fractions.



Intelligent practice – one chilli answers



Two chillies

Fill in the blanks using cubes or bar models to help you.



			9			12	
6	6	6	6	6	6	6	6
+	+	-	-	-	-	-	-
	$1\frac{1}{6}$						

Fill in the blanks using cubes or bar models to help you.



6	7	8	2	10	11	12	13	
6	6	6	6	6	6	6	6	
+	+	+	+	+	+	+	+	
1	$1\frac{1}{6}$	1 <u>2</u> 6	1 <u>3</u> 6	$1\frac{4}{6}$	$1\frac{5}{6}$	2	$2\frac{1}{6}$	

Three chillies

Write the next two fractions in each sequence. a) $\frac{12}{7}, \frac{11}{7}, \frac{10}{7}, \dots, \dots$ b) $3\frac{1}{3}, 3, 2\frac{2}{3}, \dots, \dots$ c) $\frac{4}{11}, \frac{6}{11}, \frac{8}{11}, \dots, \dots$ d) $12\frac{3}{5}, 13\frac{1}{5}, 13\frac{4}{5}, \dots, \dots$

Be extra careful with these! Some are ascending, some are descending. For C and D you will need to work out the difference between each step in the sequence to find the missing numbers.

Three chillies answers

Write the next two fractions in each sequence. a) $\frac{12}{7}, \frac{11}{7}, \frac{10}{7}, \frac{9}{7}, \frac{8}{7}$ b) $3\frac{1}{3}, 3, 2\frac{2}{3}, 2\frac{1}{3}, 2$ c) $\frac{4}{11}, \frac{6}{11}, \frac{8}{11}, \frac{10}{11}, \frac{1}{11}$ d) $12\frac{3}{5}, 13\frac{1}{5}, 13\frac{4}{5}, 14\frac{2}{5}, 15$

Be extra careful with these! Some are ascending, some are descending. For C and D you will need to work out the difference between each step in the sequence to find the missing numbers.

Dive deeper

Here is a number sequence.

 $\frac{5}{12}$, $\frac{7}{12}$, $\frac{10}{12}$, $\frac{14}{12}$, $\frac{19}{12}$,

Which fraction would come next? Can you write the fraction in more than one way? Circle and correct the mistakes in the sequences.

5		8		11		15		17
12	,	12	,	12	,	12	,	12

9	7		6		3		1
10 '	10	,	10	,	10	,	10

Dive deeper

Here is a number sequence.

$$\frac{5}{12}, \frac{7}{12}, \frac{10}{12}, \frac{14}{12}, \frac{19}{12}, \frac{25}{12}, \frac{12}{12}, \frac{12}{12}, \frac{12}{12}, \frac{12}{12}, \frac{25}{12}$$

Which fraction would come next? Can you write the fraction in more than one way? The fractions are increasing by one more twelfth each time. The next fraction would be $\frac{25}{12}$

Circle and correct the mistakes in the sequences.

 $\frac{5}{12}, \frac{8}{12}, \frac{11}{12}, \frac{15}{12}, \frac{17}{12}$ 9 7 6 3 1

 $\frac{9}{10}, \frac{7}{10}, \frac{6}{10}, \frac{3}{10}, \frac{1}{10}$



Self assessment – how did you do?

- SOME WILL EVEN count in fractions in sequences with uneven steps
- SOME will give answers as improper fractions and mixed numbers
- MOST will count in fractions using number _____ lines
- ALL will understand that it is possible to count in fractions

Did you work out the pattern in the dive deeper 1 question?

Did you complete the two chilli questions? If you got three chillies right too, you are really starting to make connections!

Did you complete the guided practice and one chilli questions?

Can you count in halves? Can you count in quarters?