

Count beyond 1

Notes and guidance

In this small step, children build on their knowledge of the whole to explore fractions greater than 1

In Year 3, children counted forwards and backwards in fractions within 1 and this is now extended to fractions greater than 1. Number lines are a useful representation, particularly alongside other pictorial representations such as bar models, to support children in counting in fractions. Children first count in unit fractions, using their knowledge that a fraction with the same numerator and denominator can be written as 1. Once comfortable counting forwards and backwards in unit fractions across whole number boundaries, they count in non-unit fractions.

In this step, children count in mixed numbers only, as improper fractions are covered later in the block. It is vital, therefore, that children are secure with the fact that when the numerator is equal to the denominator then the fraction is equivalent to 1

Things to look out for

- Children may think that fractions must be less than 1
- When crossing a whole number, particularly when counting in non-unit fractions, children may miscount, either stopping at the whole number or ignoring it, for example $\frac{4}{6}$, $\frac{5}{6}$, $1\frac{1}{6}$

Key questions

- What fraction comes next after $\frac{4}{7}$, $\frac{5}{7}$, $\frac{6}{7}$? How do you know?
- What fraction comes before _____? How do you know?
- What do you know about a fraction with the same numerator and denominator?
- What is 1 whole plus another $\frac{1}{3}$?
How could you draw that as a bar model?
- What is 3 and $\frac{5}{5}$ the same as?
- What is the sequence counting forwards/backwards in?

Possible sentence stems

- There are _____ _____s in 1
- The sequence is counting forwards/backwards in _____s.

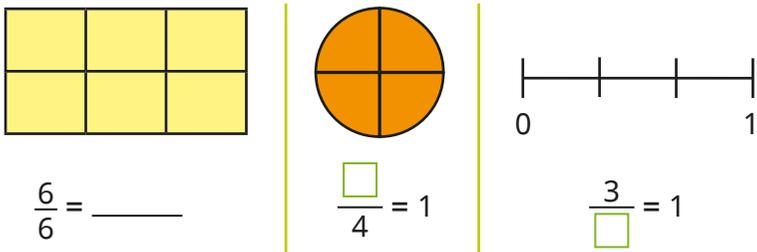
National Curriculum links

- This small step is not taken from the Year 4 National Curriculum. It is included to take into account the non-statutory DfE Ready to Progress guidance.

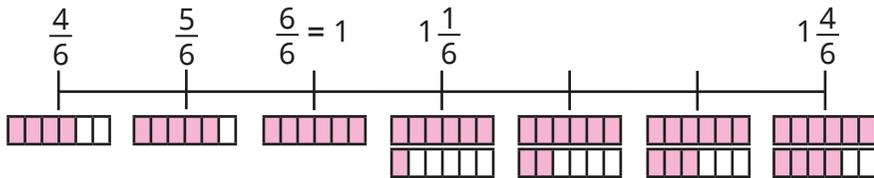
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Key learning

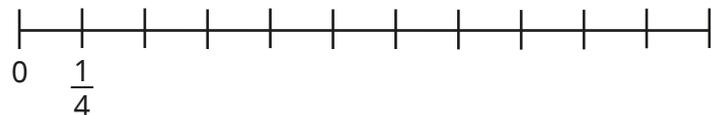
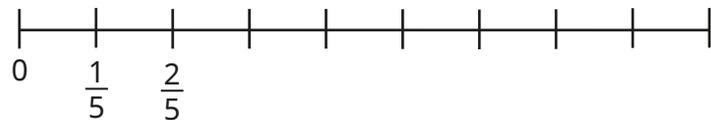
- Fill in the missing numbers.



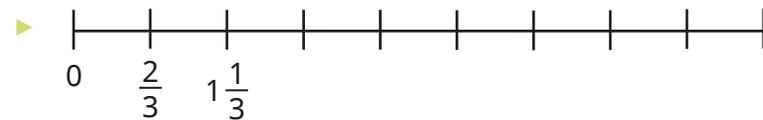
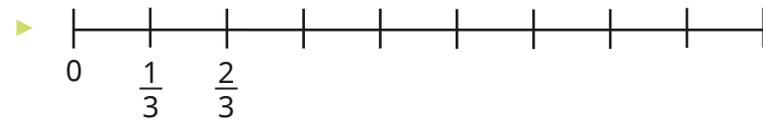
- Complete the number line, counting in sixths.



- Complete the number lines.



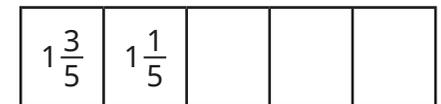
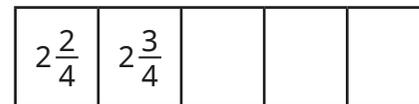
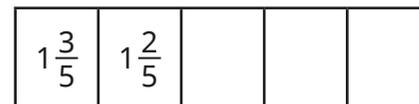
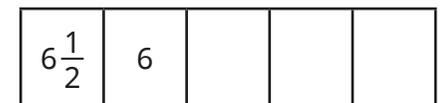
Complete the number lines.



What is the same about the number lines?

What is different?

- Complete the number tracks.



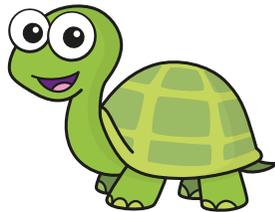
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Reasoning and problem solving

Tiny is counting in fifths.

$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{5}$
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I cannot count any further, because fractions are always less than 1



Do you agree with Tiny?
Explain your answer.



No

Tommy, Whitney and Dexter are counting forwards and backwards.



Tommy

I am counting forwards in $\frac{3}{7}$ s, starting at 0

I am counting forwards in $\frac{4}{7}$ s, starting at 3



Whitney

$4\frac{5}{7}$



Dexter

I am counting backwards in $\frac{2}{7}$ s, starting at 5

What number will all three children say?