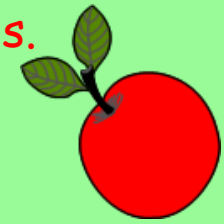
Year 2 Fractions

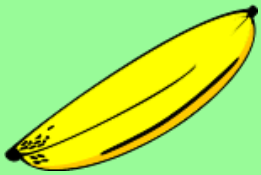
Recognise, find, name and write fractions third, quarter, two quarters and three quarters of a length, shape, set of objects or quantity.

Write simple fractions e.g. half of 6 = 3 and recognise the equivalence of two quarters and one half.

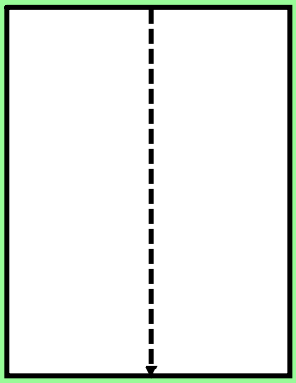
These activities use conceptual variation to show the concepts of fractions in different ways to demonstrate key ideas.

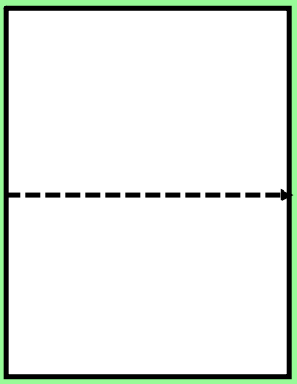
Recap the language of fractions using fruit from the fruit basket and with one piece of fruit (emphasise this is **the whole**), then cut into **two equal** pieces (emphasise this results in **two equal parts of the whole - two halves**). Discuss how we could put the two equal parts of the whole back together to create the whole again. Repeat with other pieces of fruit to ensure children have fully understood the concept and the **vocabulary**. Extend to quarters and thirds.



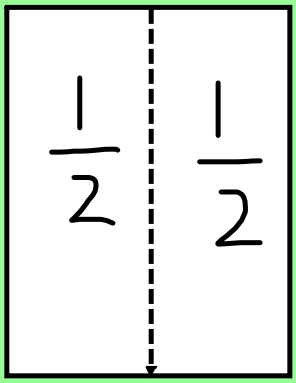


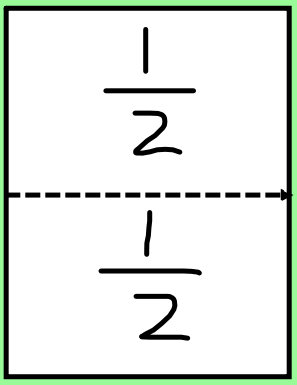
Model halving a piece of paper using folding and cutting. Continue to emphasise the language of whole, two equal parts, part part whole, halving, two halves making a whole. Repeat landscape and portrait folding.



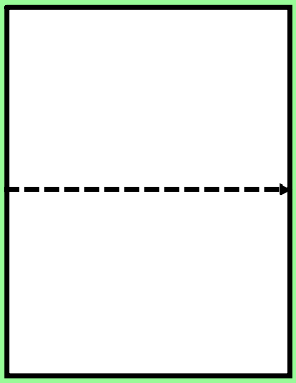


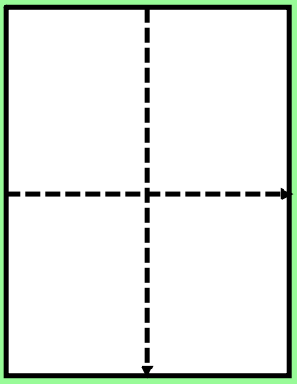
Label each half.

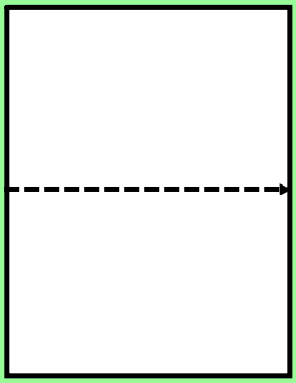


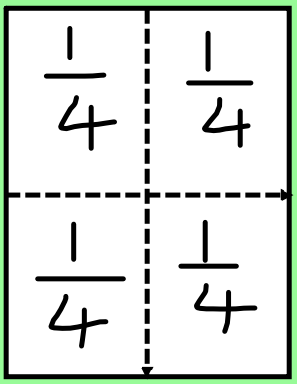


Challenge the children to quarter a piece of paper using folding and cutting. Continue to use the language of whole, four equal parts, part part whole, halving, four quarters making a whole. Label the quarters.

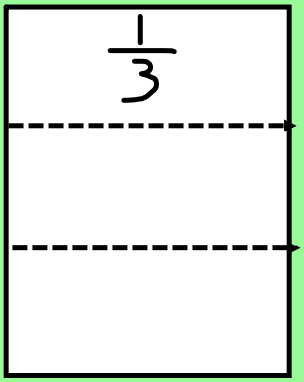


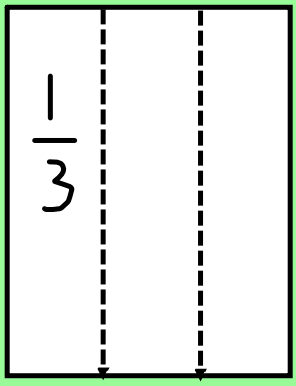





1/4
1/4
1/4
1/4

Discuss what the children think a third would be. How many equal parts? Allow children the chance to explore how to fold a piece of paper into thirds and model how to write this fraction. Continue to use the language of whole, equal parts, part part whole.





Recap half as 2 equal parts of the whole.

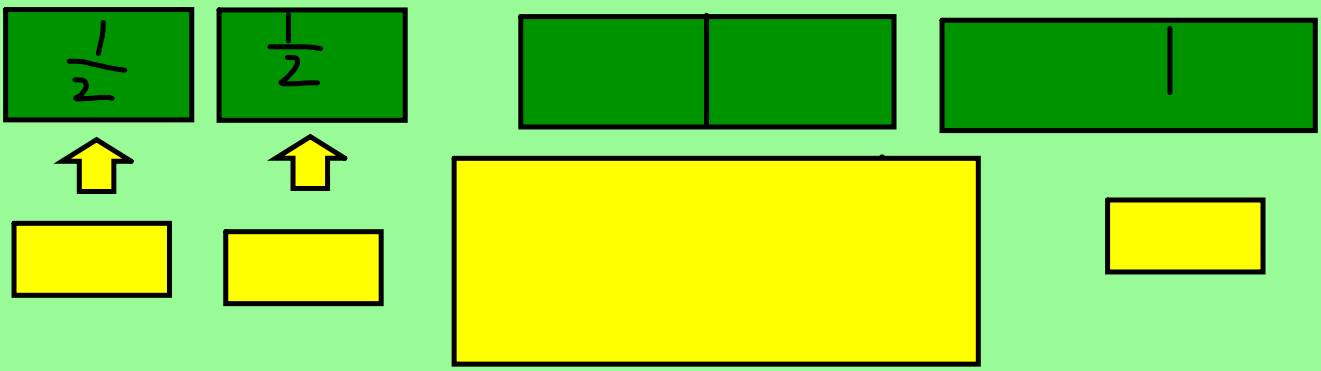
whole

cut into
two equal parts

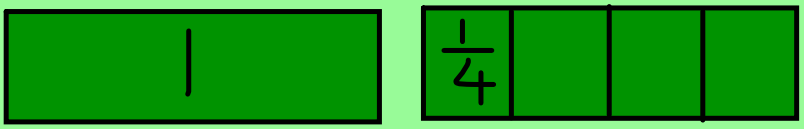
part

part

Recap parts making the whole.

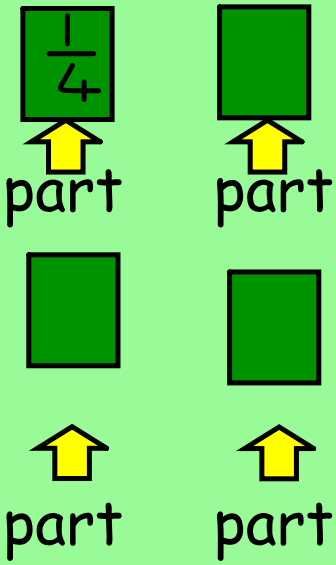


Discuss quarter as 4 equal parts of the whole.

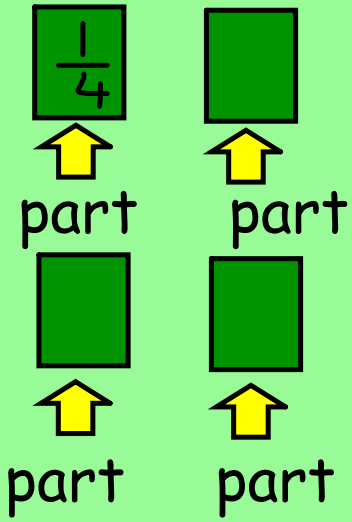


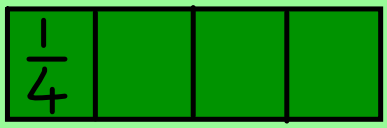
whole

cut into four equal parts

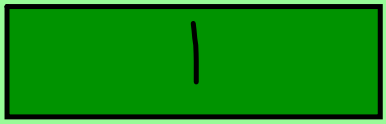


Discuss quarter as 4 equal parts of the whole.



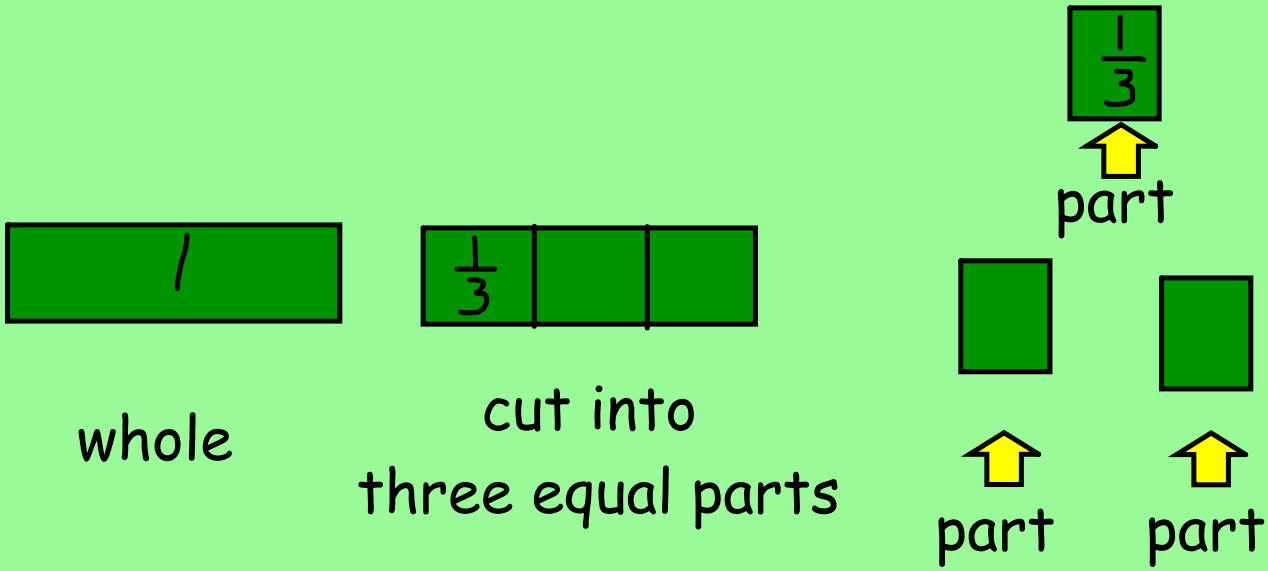


put four equal parts together

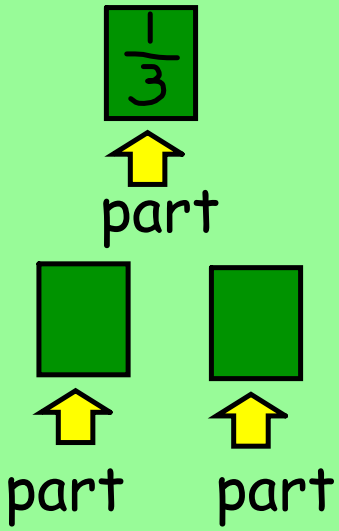


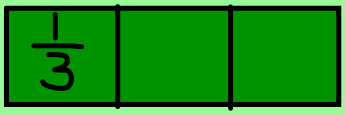
whole

Discuss thirds as 3 equal parts of the whole.

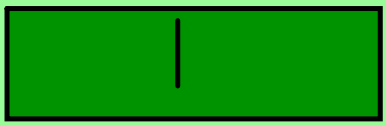


Discuss thirds as 3 equal parts of the whole.



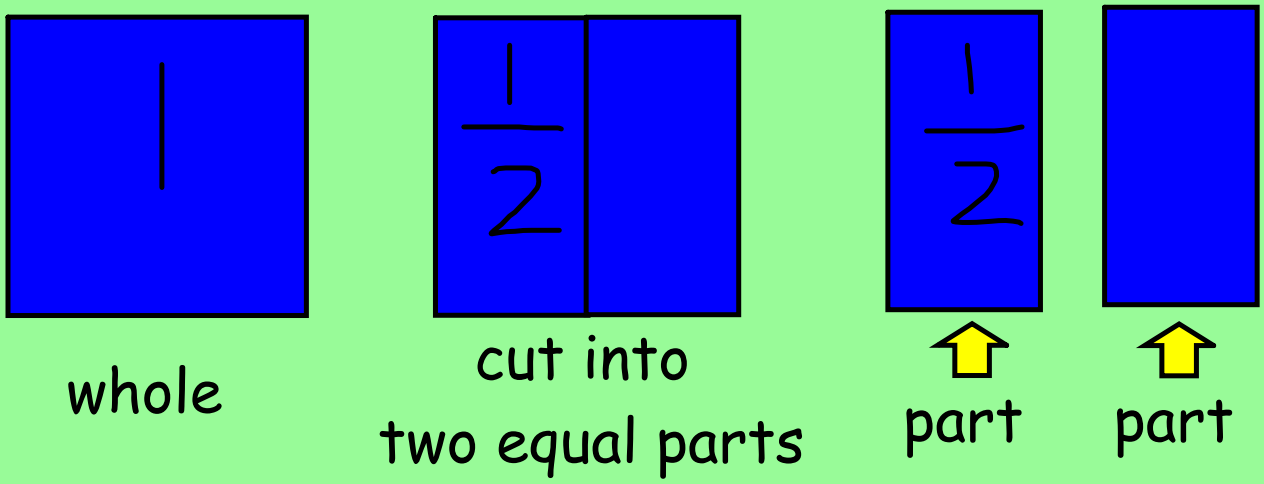


put three equal parts together

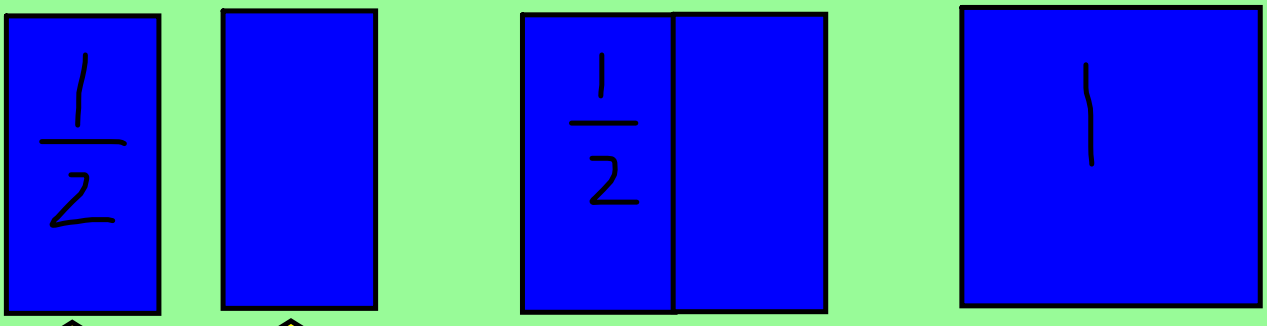


whole

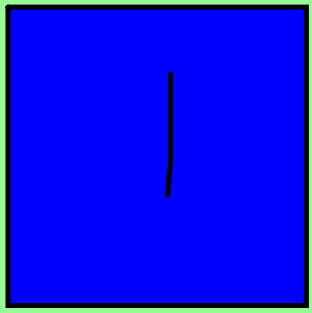
Discuss half as 2 equal parts of the whole.



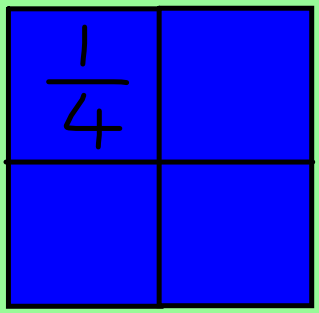
Discuss 2 halves make a whole. Emphasising the part part whole vocabulary.



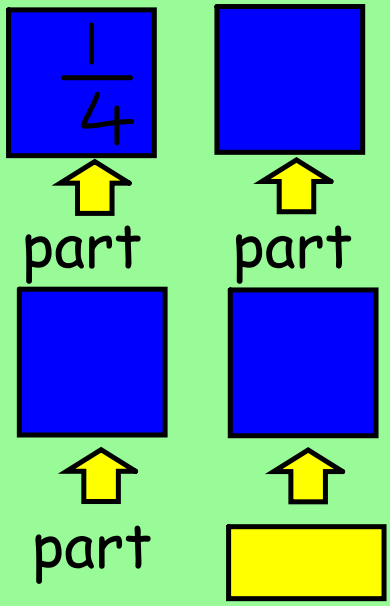
Discuss quarter as 4 equal parts of the whole.



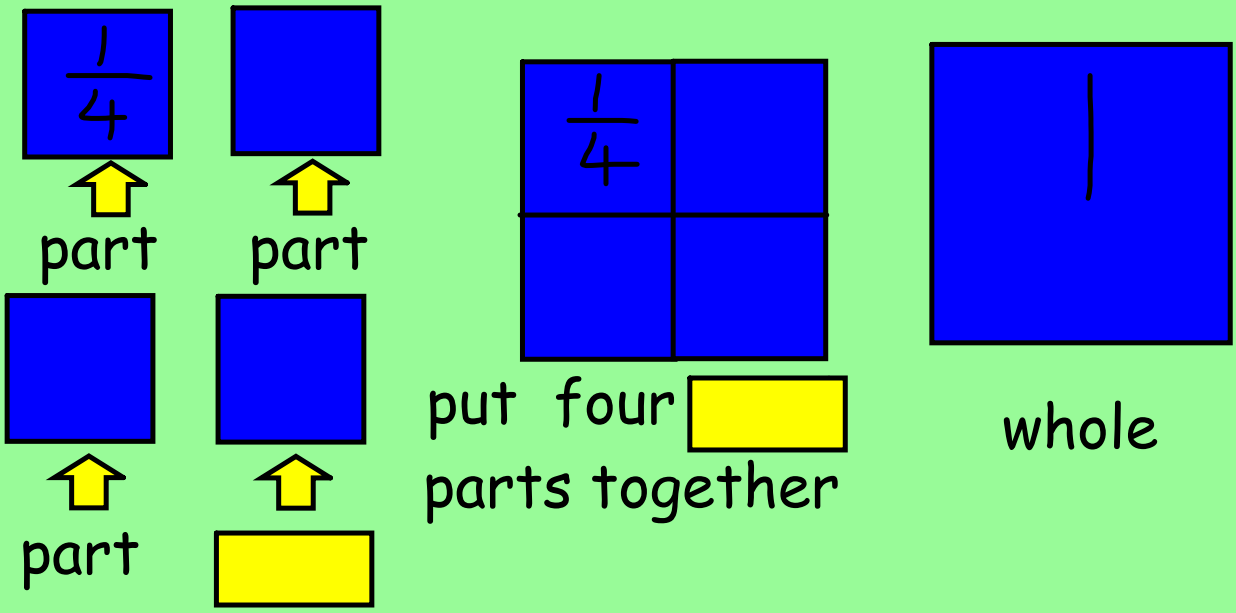
whole



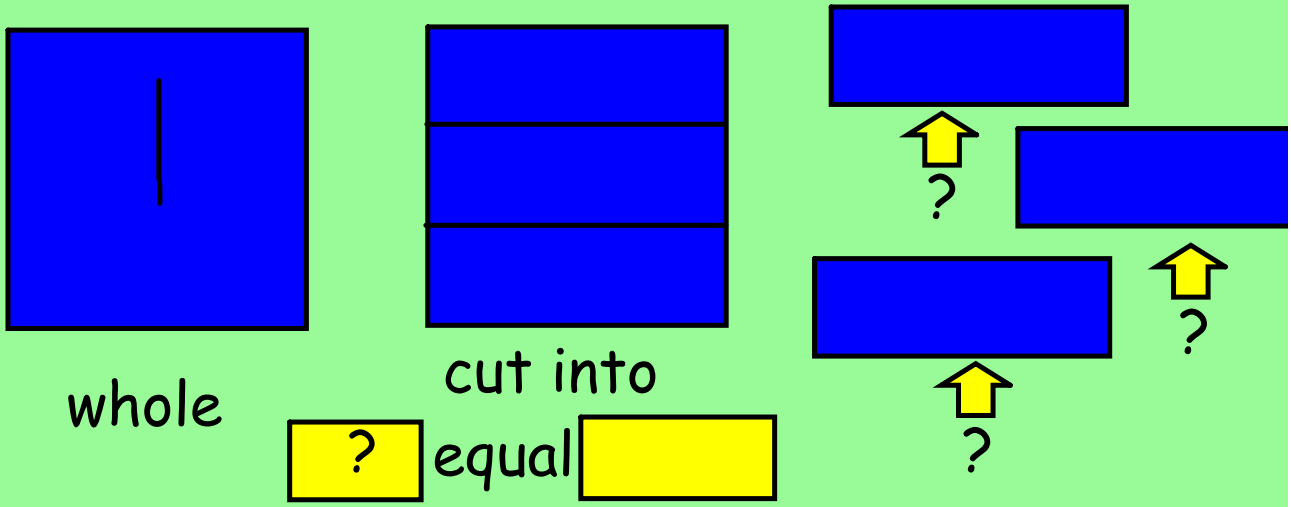
cut into four parts



Discuss quarter as 4 equal parts of the whole.



Challenge children to use the correct vocabulary of "whole" and "part part whole"



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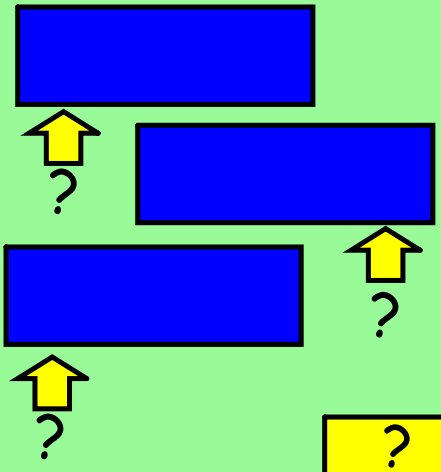
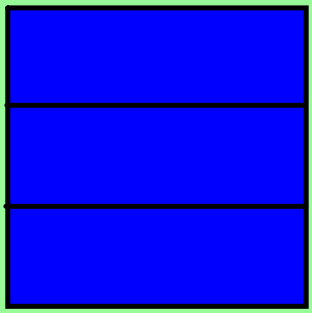
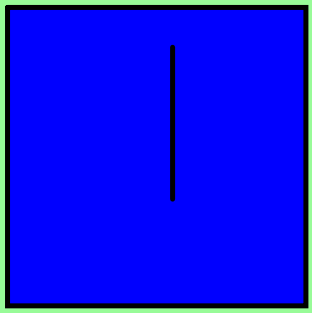




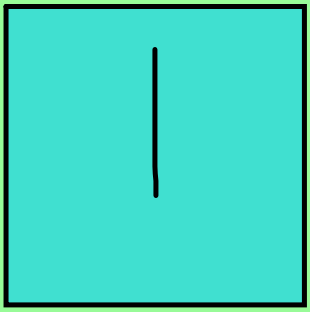
cut into

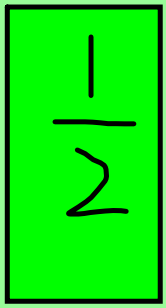
? equal

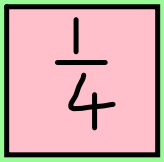


whole

Give each child a square piece of blue paper, green paper and pink paper. Ask the children to fold the green paper in half and the pink paper in quarters and label them. Allow the children the opportunity to explore how many folded green shapes fit on the blue paper and how many pink folded shapes fit on the green paper and the blue paper.

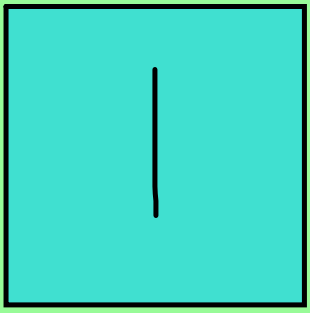


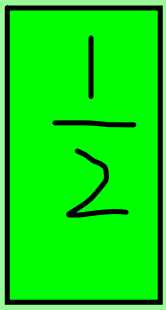


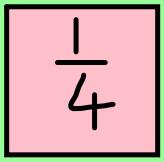


Discuss the children's findings using whole and part whole vocabulary that four quarters (pink) made one whole (blue), two halves (green) made one whole (blue) and two quarters (pink) make one half (green).

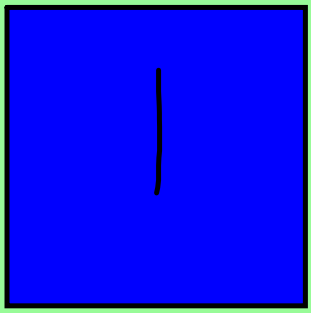
Write these as number sentences.



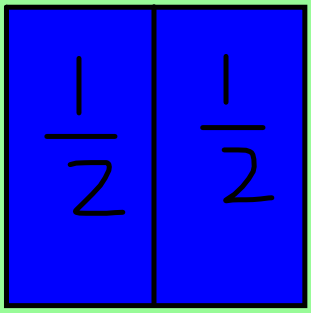




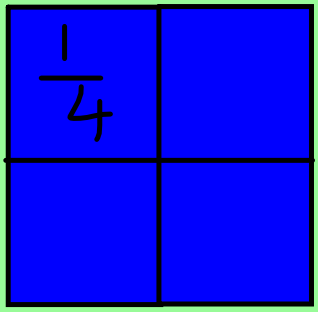
Reinforce the equivalence of two quarters and one half.



whole

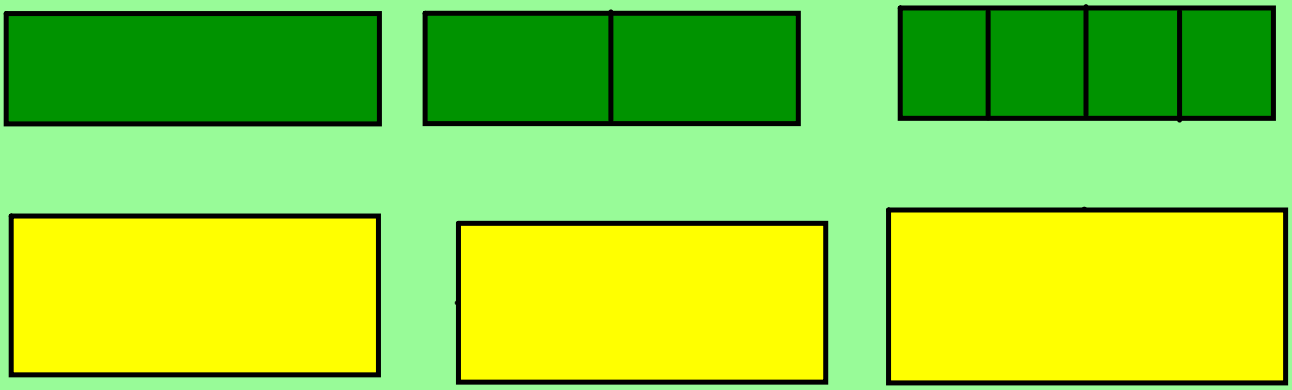


2 halves

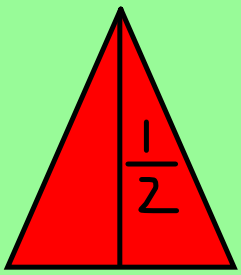


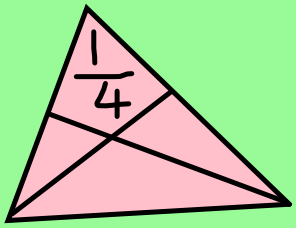
4 quarters

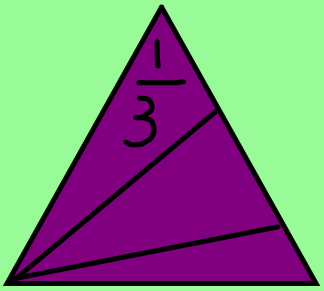
Challenge the children to use the correct vocabulary of whole and part whole.

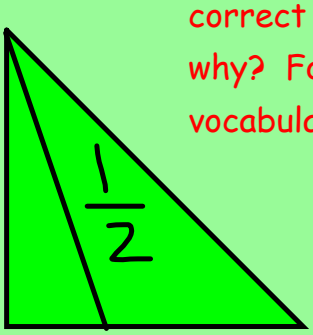


True or False?





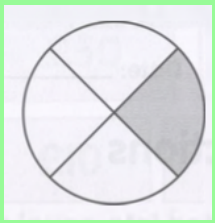


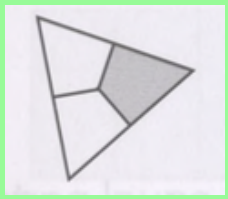


Discuss each shape - what is the same? What is different? What do the children notice? Which shapes do they think show the correct fraction and why? Focus on vocabulary.

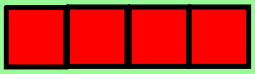
What fraction of the shape is shaded?

How do you know?

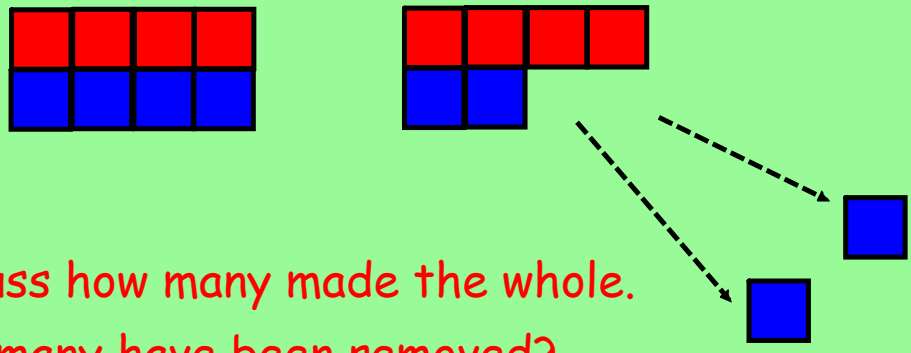




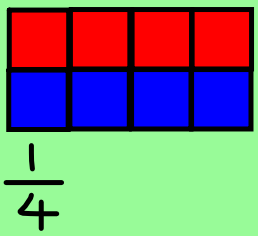
Take 4 cubes to make a 'train'. How many cubes make the whole train? What fraction does each cube represent of the whole train?



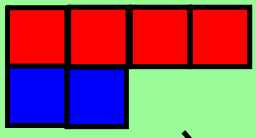
Make a further 'train' with 4 cubes and then remove 2 of them.

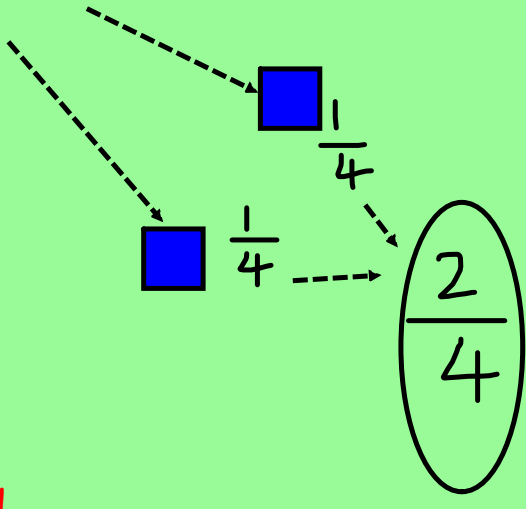


Discuss how many made the whole.
How many have been removed?
Write this as a fraction as a class.



$\frac{1}{4}$





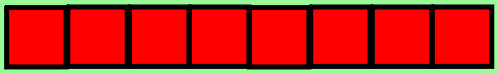
Discuss how many made the whole.

How many have been removed?

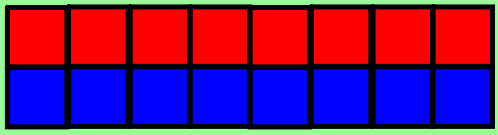
Write this as a fraction as a class.

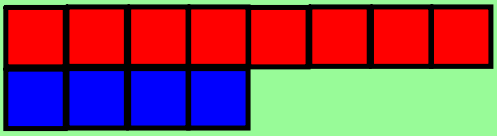
How many are left? Discuss whether this could be represented another way?

Take 8 cubes to make a 'train'. How many cubes make the whole train? What fraction does each cube represent of the whole train?

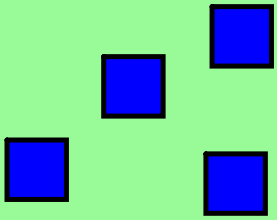


Make a further 'train' with 8 cubes and then remove 4 of them.





Discuss how many made the whole.
How many have been removed? Write this as a fraction as a class. (4 cubes out of the original 8 is half)

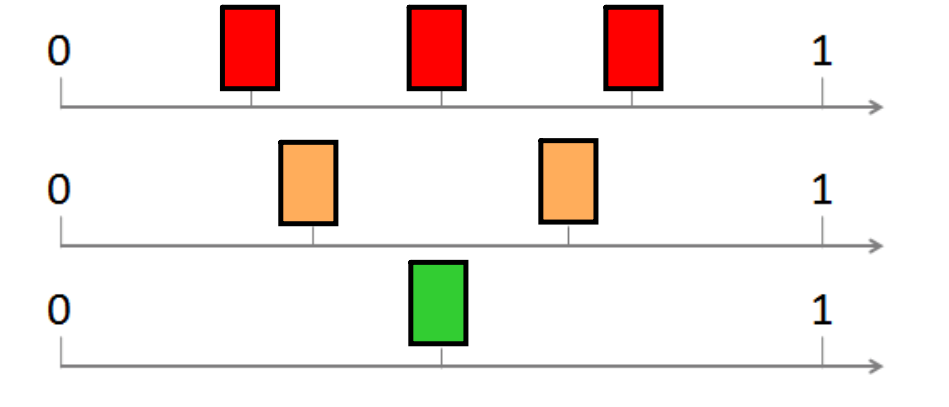


Make further 'train' with 12 cubes and then remove 4 of them.

How could we find half of the line?

What fractions are marked on the line?

Explain your reasoning.



Work through the following slides with the children finding fractions of objects and quantities. Use manipulatives alongside the images to demonstrate finding fractions of objects and quantities by sharing into equal groups. Emphasise the importance of the denominator as the divisor.

Ensure that you continue to focus on correct use of vocabulary of whole and part whole and the equivalence of two quarters and one half.

Half the number of biscuits

$\frac{1}{2}$ of _____ = _____

Find half the number of lollies

$\frac{1}{2}$ of _____ = _____

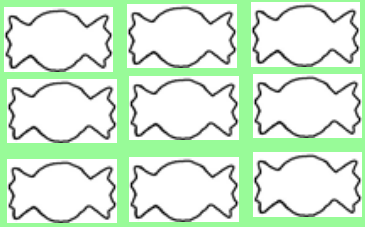
Find quarter of the biscuits

$\frac{1}{4}$ of ____ = ____

Find a quarter of the lollies

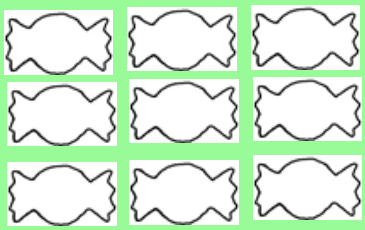
$\frac{1}{4}$ of _____ = _____

What is $\frac{1}{3}$ of the sweets?



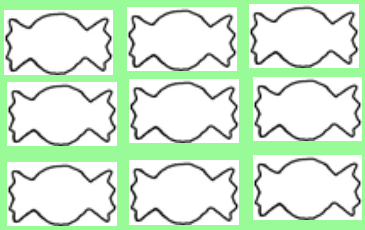
How can we find a third of a group?

What is $\frac{1}{3}$ of the sweets?

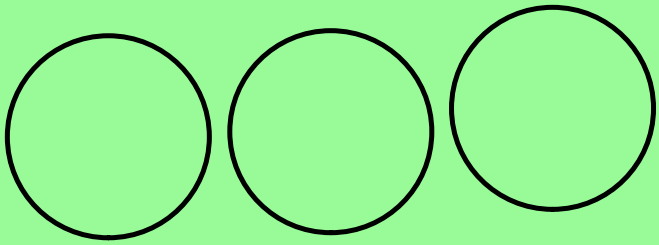


The denominator says 3. Is this useful?

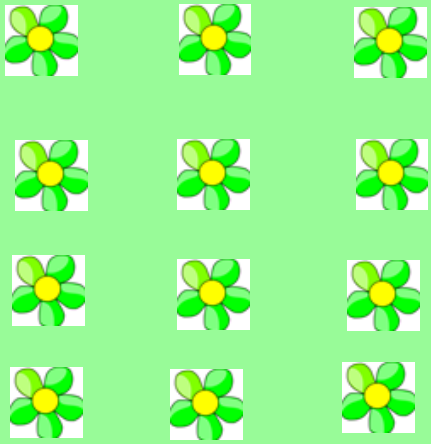
What is $\frac{1}{3}$ of the sweets?



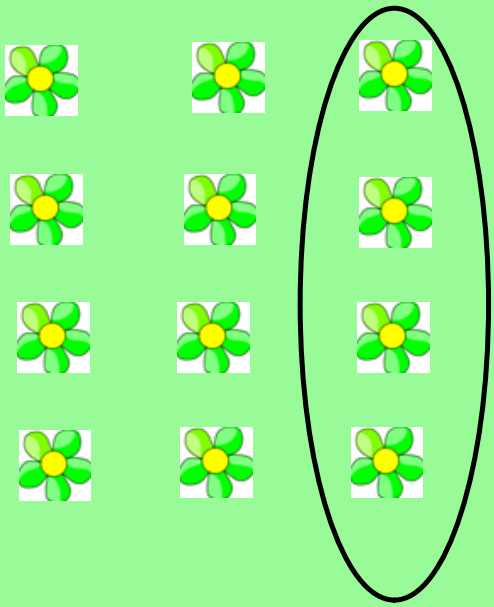
We need 3 equal groups



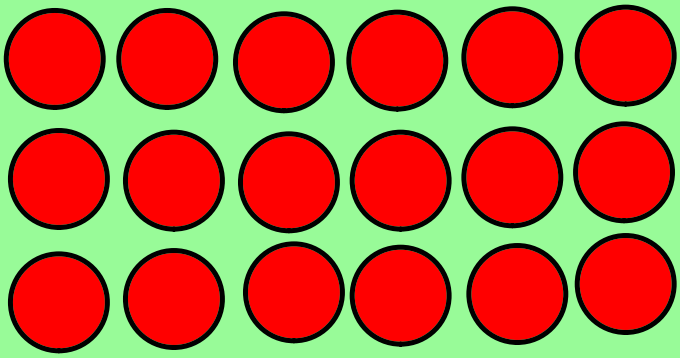
Circle $\frac{1}{3}$ of these flowers.



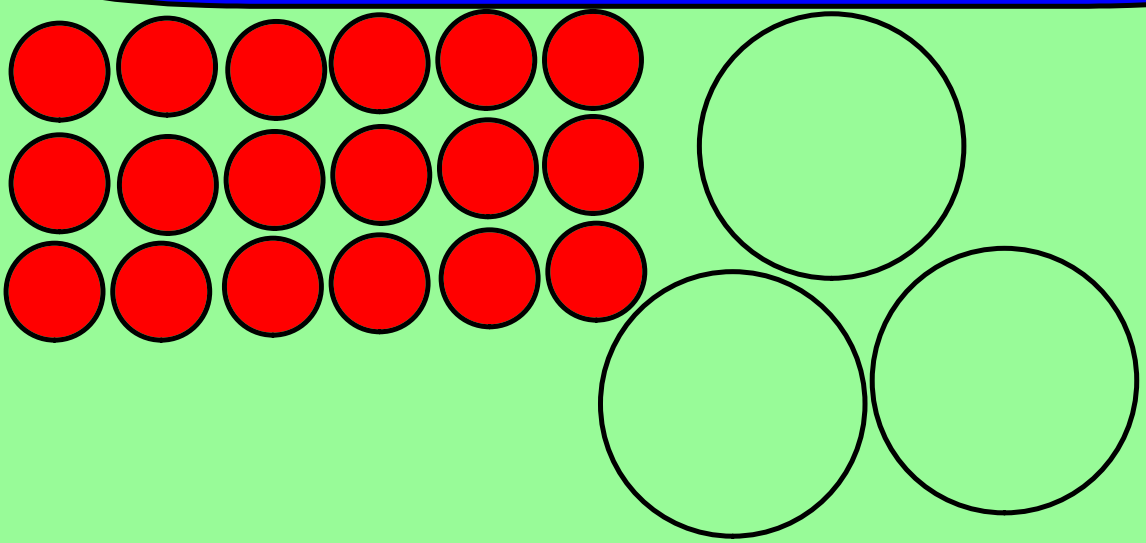
Circle $\frac{1}{3}$ of these flowers.



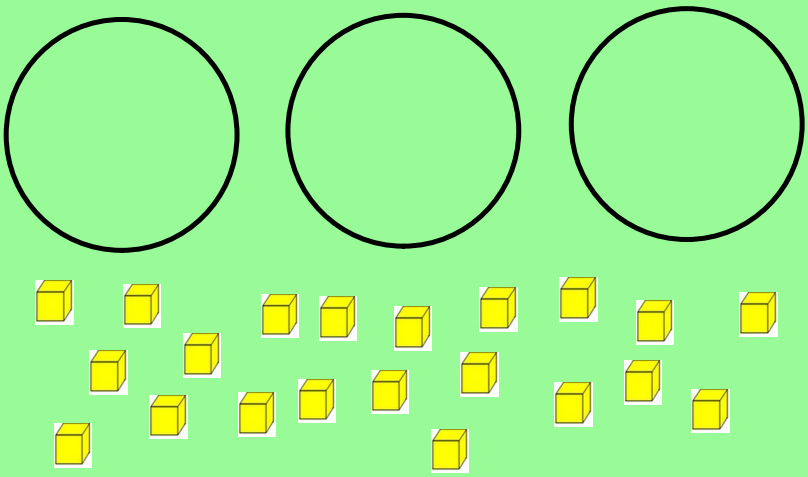
What is $\frac{1}{3}$ of 18?



What is $\frac{1}{3}$ of 18?



What is $\frac{1}{3}$ of 21?



Find one quarter of the biscuits

Find two quarters of the biscuits

Find three quarters of the biscuits

Find four quarters of the biscuits