

At-Home Investigation

Sharing and Half:

Some of the pictures below show half and some don't show half.

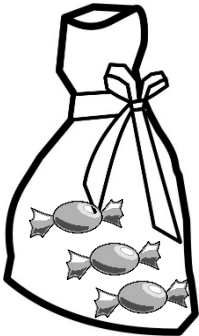
Tick the pictures that show half and **cross** the ones that don't show half.

Half a glass of juice:



Explain your thinking:

Half of the 8 lollies are in the bag:



Explain your thinking:

Quarters are half of a half

Draw a quarter of the 8 lollies in this bag. Explain your thinking.



Make or show quarters:

Quarters are half of a half. Four quarters make one whole.

Quarters of string:

Collect some string. Cut it in quarters. Tape your quarters here. How did you make sure they were quarters?

My string:

Quarters of a sandwich:

Draw a sandwich. What would it look like to cut it into quarters? Draw it below and explain how you did it.

My sandwich:

Making ten card game

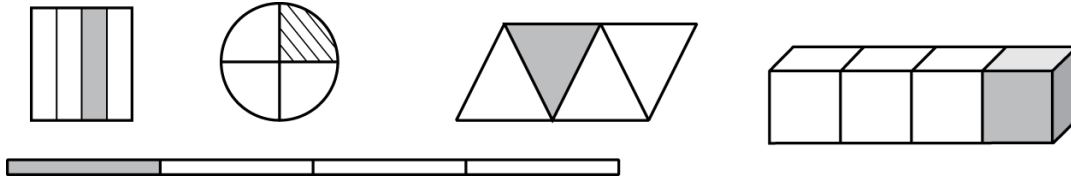
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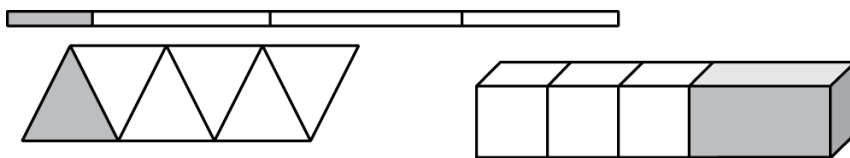
One quarter of shapes

Today you will learn about the fraction 'one quarter'. You will learn why some pictures show one quarter and others don't, and what the symbol is for one quarter.

These pictures all show one quarter:

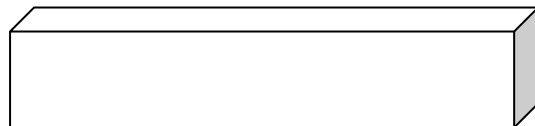
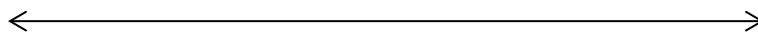
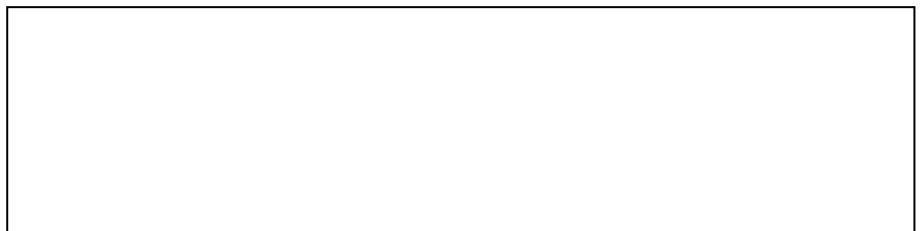
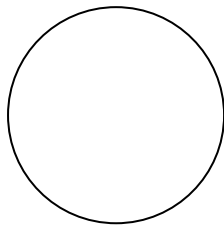


These pictures do not show one quarter:



What is the difference between the pictures that show one quarter and those that do not show one quarter?

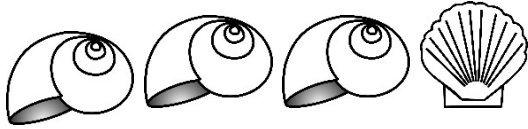
Divide the following shapes into quarters.



How did you know what to draw?

One quarter of a group

These collections show one quarter:



One quarter of the shells are fan-shaped



One quarter of the shoes are boots

These collections do not show one quarter:



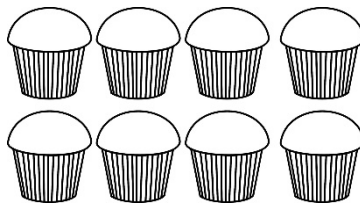
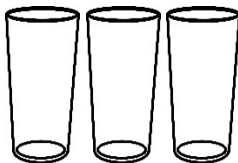
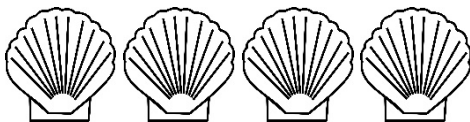
This is not one quarter of the stars



This is not one quarter of the clocks

What is the difference between the collections that show one quarter and the collections that don't?

Colour one quarter of these collections if you can. Put a cross through the ones that you can't.



Explain how you did it:

Introducing Eighths:

Think it through:

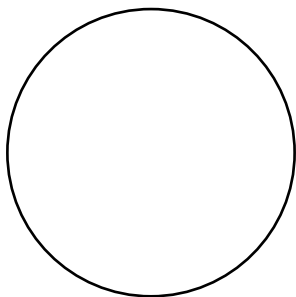
Quarters are also called fourths. Why do you think they might be called fourths? Draw a picture and explain your thinking

Today we are going to make eighths. Brainstorm what you think eighths might be:

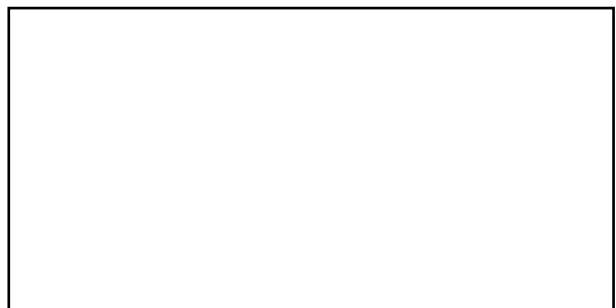
The next page has some pictures to show what eighths are. What do you notice about them? What do they have in common?

Use what you have learned to draw eighths below:

Pizza: draw eighths



Rectangle: draw eighths



Lollies: how many in one eighth? Feel free to rearrange them to make it easier.



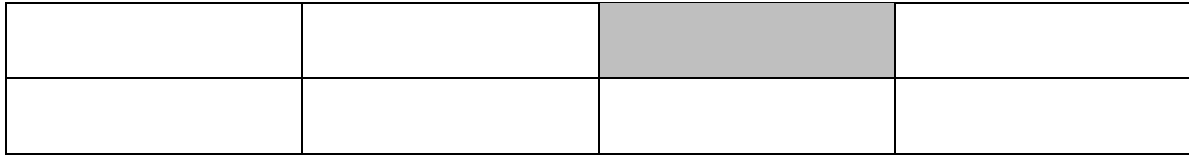
Eighths examples:

Each of the pictures below shows eighths. Look at them to work out what they have in common.

What do you think eighths are?

Shapes:

This shows 1 eighth of the rectangle:

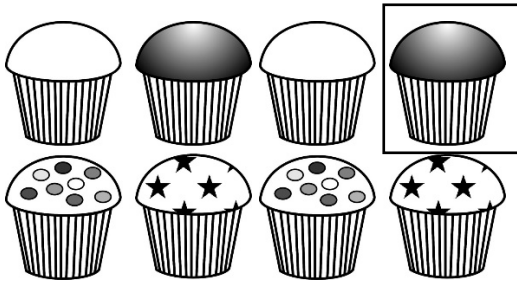


This shows 3 eighths of the rectangle:

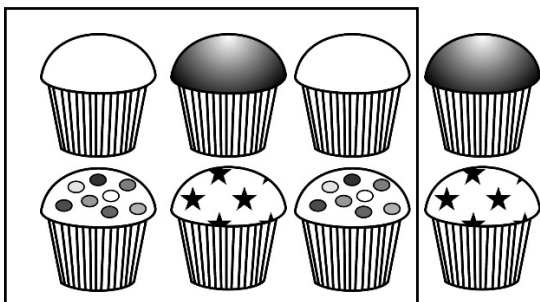


Groups:

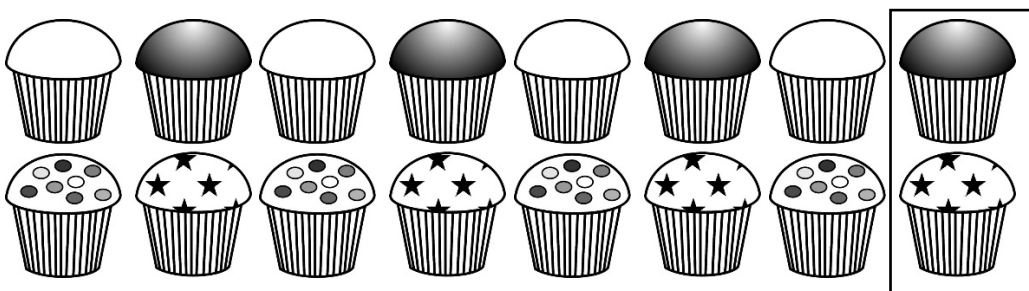
This shows 1 eighth of the 8 cupcakes:



This shows 6 eighths of the 8 cupcakes:



This shows 1 eighth of the 16 cupcakes:



Interleaved practice

Number:

1. Draw 15 counters arranged as a triangle.
2. Two flowers were growing. Each had 17 petals. How many petals altogether? Show how you did it.
3. What number comes before 267?

Measurement/Geometry:

4. Draw a picture of a clock face. Show the time as half-past three.
5. What day was it before yesterday?
6. Use triangles, rectangles and circles to draw a building.

Chance/Data:

7. Use tally marks to show how many days we have had so far this month, and how many days are yet to come.

Friday: Connecting and Generalising Lesson

Are different shaped halves the same size or not?

Your little brother is trying to decide how to cut his sandwiches. He decides that he wants to cut his sandwich diagonally so that the pieces are bigger and he can have more food. What do you think? Are the pieces bigger or not? Prove that your idea is right.

Halves of the sandwich:



Use a rectangular piece of paper to represent the sandwiches – that way you can fold it and cut it to make each of the halves shown. **Are the halves the same size or different sizes?** Draw pictures and write sentences to explain your thinking.

What ways could you cut the sandwiches to show quarters? Draw 3 ways here: