

How to:

1. Complete finding quarters part 1. The questions are for discussion whilst your child completes this part.
2. As a challenge, complete reasoning and problem solving part 1.
3. Complete 'Finding a quarter part 2'. The questions are for discussion whilst your child completes this part.
4. As a challenge, complete reasoning and problem solving part 2.

Finding a quarter part 1

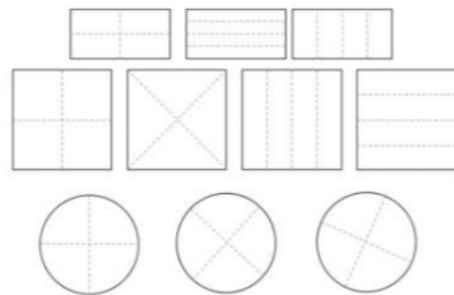
- ' Take two square pieces of paper, two circular pieces of paper and two rectangular pieces of paper.

Model folding one of each into four equal **parts** and the other into four non-equal parts.

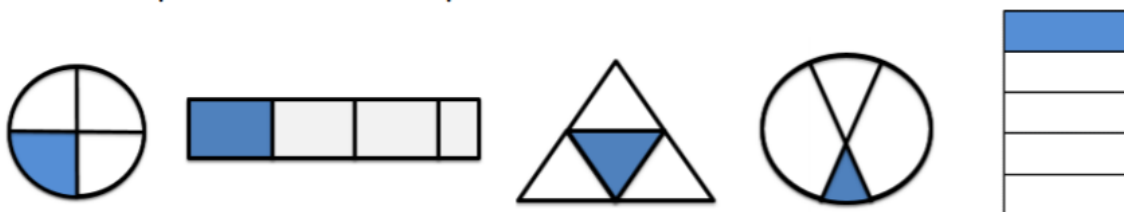
- Which shapes show equal parts? Which do not?
- How many equal parts can we see?
Can we fold any of the shapes in a different way and still get equal parts?

Count the equal parts and then model counting them in quarters.

- ' Colour a quarter of each shape. Can you colour it in different ways?



- ' Tick the shapes that show quarters.



Questions to discuss

How many parts does my whole have?

Are my parts equal or not equal?

How many equal parts can we see/count?

Can we make a quarter in a different way?

Which shapes show equal parts?

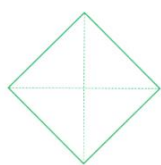
Which shapes show four equal parts?

Which shapes show quarters?

Reasoning and problem solving part 1

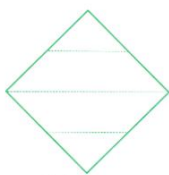
1.

Alex and Jack are talking about quarters.



Alex

My shape shows quarters because it has four equal parts.



Jack

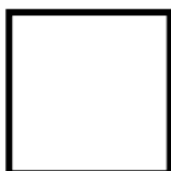
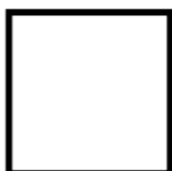
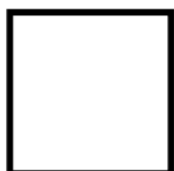
My shape shows quarters because it has four parts.

Are they correct?
Explain your answer.


2.

Use the squares to show:

- Less than a quarter shaded.
- Exactly a quarter shaded.
- More than a quarter shaded.



Finding a quarter part 2

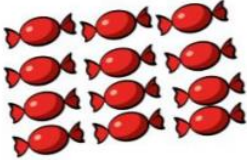
 Share each quantity into four equal groups.



There are ___ cakes.

There is ___ cake in each quarter.

A quarter of ___ is ___



There are ___ sweets.

There are ___ sweets in each quarter.

A quarter of ___ is ___



There are ___ peaches.


There are ___ peaches in each quarter.

A quarter of ___ is ___

 Use a range of containers and rice/water.

Can you show me a quarter full in each container?

Do they look the same or different?

 Use counters to complete the sentences.

A quarter of 4 is ___

A quarter of 8 is ___

1 is one quarter of ___

3 is one quarter of ___

Questions to discuss

How many sweets do I have? How can I share them equally into four groups? What is one quarter worth?

Are my containers the same or different?

Can you show me a quarter full in each container.

How can I quarter this amount?

If I have 2, and it is a quarter, what will the whole look like?

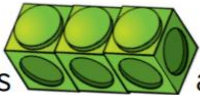
What will the whole be worth?

Reasoning and problem solving part 2

1.

One cube  is a quarter, what could the whole look like?

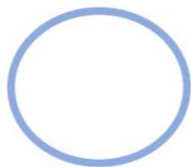
Two cubes  are a quarter, what could the whole look like?

Three cubes  are a quarter, what could the whole look like?

How many different possibilities can you make?

2.

Mr. White has asked his class to put one quarter of the balls into the hoop.



Teddy

I'm going to put one ball in the hoop.

I'm going to put three balls in the hoop.



Whitney



Tommy

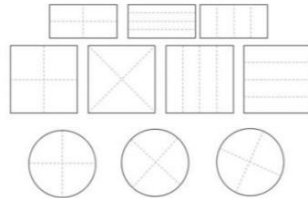
I'm going to put four balls into the hoop.

Who is correct? Can you explain any mistakes made?

Answers

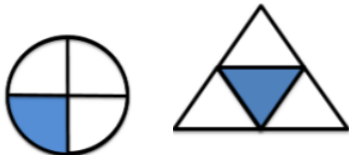
Finding a quarter part 1

Colour a quarter of each shape. Can you colour it in different ways?



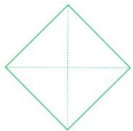
Colour 1 part in each shape.

Tick the shapes that show quaters



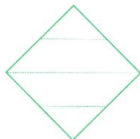
Reasoning and problem solving part 1

Alex and Jack are talking about quarters.



Alex

My shape shows quarters because it has four equal parts.



Jack

My shape shows quarters because it has four parts.

Are they correct?
Explain your answer.

Alex is correct because quarters must be four equal parts.
Jack has split his square into four unequal parts so they are not quarters.

Use the squares to show:

- Less than a quarter shaded.
- Exactly a quarter shaded.
- More than a quarter shaded.



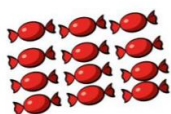
There are multiple solutions for each one.

Finding a quarter part 2

Share each quantity into four equal groups.



There are ___ cakes.
There is ___ cake in each quarter.
A quarter of ___ is ___



There are ___ sweets.
There are ___ sweets in each quarter.
A quarter of ___ is ___



There are ___ peaches.
There are ___ peaches in each quarter.
A quarter of ___ is ___

Use a range of containers and rice/water.
Can you show me a quarter full in each container?
Do they look the same or different?

Use counters to complete the sentences.

A quarter of 4 is ___ A quarter of 8 is ___

1 is one quarter of ___ 3 is one quarter of ___

There are 4 cakes.
There is 1 cake in each quarter.
A quarter of 4 is 1.

There are 12 sweets.
There are 3 sweets in each quarter.
A quarter of 12 is 3.

There are 8 peaches.
There are 2 peaches in each quarter.
A quarter of 8 is 2.


A quarter of 4 is 1.


A quarter of 8 is 2.

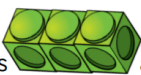
1 is one quarter of 4.

3 is one quarter of 12.

Reasoning and problem solving part 2

One cube  is a quarter, what could the whole look like?

Two cubes  are a quarter, what could the whole look like?

Three cubes  are a quarter, what could the whole look like?

How many different possibilities can you make?

Possible answers:

Any arrangement of 4 cubes.

Any arrangement of 8 cubes.

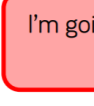
Any arrangement of 12 cubes.

There are many different possibilities which the children will find through their exploration with the multilink.

Mr. White has asked his class to put one quarter of the balls into the hoop.



I'm going to put one ball in the hoop.



I'm going to put three balls in the hoop.



I'm going to put four balls into the hoop.

Who is correct? Can you explain any mistakes made?

Whitney is correct because one quarter of 12 is 3

Teddy has misinterpreted **one** quarter to just mean one.

Tommy knows that quarters are linked to fours but hasn't split the balls into four equal groups.