Find a Quarter

Adult Guidance with Question Prompts

Children find a quarter by practically sharing objects into four equal groups. Children could use counters to represent the apples when sharing them equally. They complete stem sentences about the equal sharing. They find fractions of amounts, using practical apparatus as necessary.

How many apples are there?

How many children are there?

How can we share them equally?

Why does it need to be equal sharing?

Can you use equipment to represent the apples?

How many equal parts have you split the apples into?

How many apples are in each part?

What is one quarter of eight?

How do we write one quarter?

How many bananas are there?

Explain how you will circle one quarter.

Does the way the picture is laid out help you? How?

How can you find one quarter of these amounts?

Can you use equipment to help you?

Explain how.

Find a Quarter

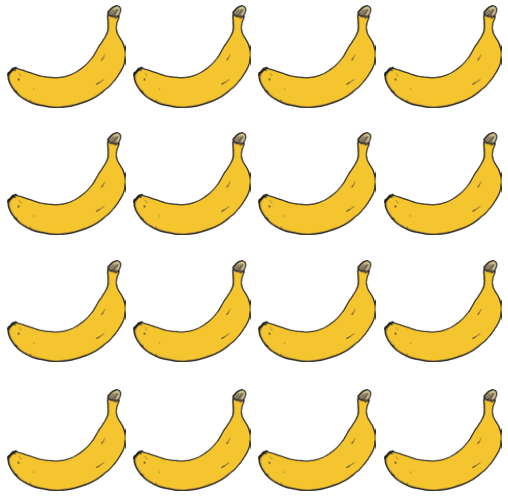
Share the apples between the children.

The apples are split into _____ equal parts.

There are _____ apples in each part.

$\frac{1}{4}$ of 8 is _____.

Circle $\frac{1}{4}$ of the bananas.



$\frac{1}{4}$ of 4 is _____.

$\frac{1}{4}$ of 12 is _____.

$\frac{1}{4}$ of 20 is _____.

$\frac{1}{4}$ of 16 is _____.

$\frac{1}{4}$ of 8 is _____.

$\frac{1}{4}$ of 24 is _____.

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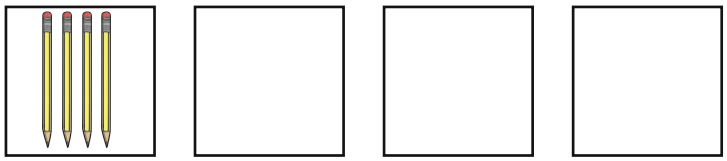
Children know what one quarter of a quantity is and use this to find the whole quantity. They could use pencils or some other equipment to help with this. They may find drawing a diagram helpful, for example:



Then they can fill the other quarters with equal quantities of pencils to find the total.

How many pencils are in the pot?

What fraction of her pencils are in the pot?

How many equal groups of five would represent her whole pencil collection?

Could you use equipment or a drawing to find out how many pencils she will have in total?

Can you write this using the fraction notation for one quarter?

How do we write one quarter?

What does the one represent?

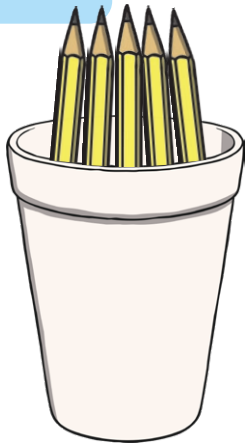
What does the four represent?

Can you work out what Alex's number is?

Explain and show me how you've worked it out.

Find a Quarter

Alex has some pencils. One quarter of them are in this pot.



How many pencils does she have in total?

$\frac{1}{4}$ of _____ = 5

Explain how you know.

Alex thinks of a number.

One quarter of her number is 4.

What is her number?

Convince me using equipment.

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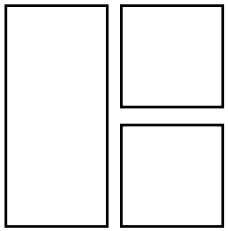
Children use their understanding of finding a quarter to solve problems. In the first problem, they could use the picture to help them or represent the pears with concrete materials. For the second problem, they could create their own diagrams or drawings, or use equipment. Children will need to use their prior learning about finding one half as well as finding one quarter. If children struggle, it may be helpful to introduce a diagram like this for support:

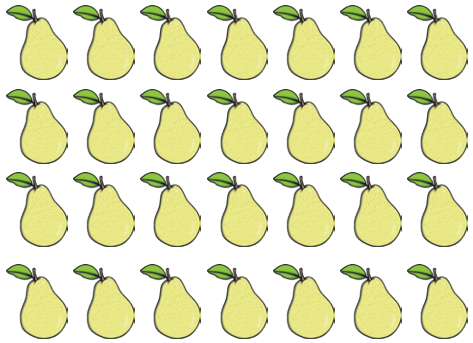


How many pears does Miss Smith have?
What fraction do the class eat?
How are they arranged in the picture?
How can this help you find one quarter?
How many pears were eaten?

What fraction of the fruit are bananas? What is half of 20? How did you find out?
What fraction of the fruit are pears? What is one quarter of 20?
How many satsumas are left over? What fraction is left over? How could you check that 5 satsumas are $\frac{1}{4}$ 20?

Find a Quarter

Miss Smith has 28 pears.



Her class eat $\frac{1}{4}$ of the pears at breaktime.

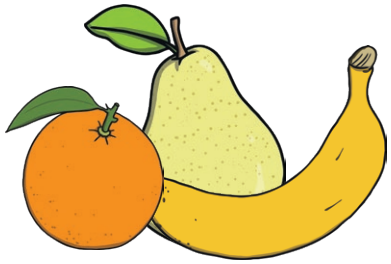
How many were eaten?

In Mr Jones' fruit box, there are 20 pieces of fruit.

$\frac{1}{2}$ are bananas.

$\frac{1}{4}$ are pears.

The rest are satsumas.



How many bananas are there?

How many pears are there?

How many satsumas are there?

What fraction of the fruit are the satsumas?