

Our Maths Learning Journey

Key vocabulary:

Half
Quarter
Third
Equivalent
Equal part
Numerator
Denominator
Fraction
Unit fraction
Non-unit fraction

To find the duration of time using an analogue clock in 30- and 60-minute intervals

To tell and write time to 5-minute intervals

To tell time to 5-minute intervals and to the hour

To tell and write time in hours and quarters.

To tell and write time in hours and quarters.

Unit Fractions
 $\frac{1}{2}$ and $\frac{1}{4}$, $\frac{1}{3}$
Non Unit fractions
 $\frac{2}{4}$, $\frac{3}{4}$

16.04.2024

Challenge

Is each sentence true or false?



a)



$\frac{3}{4}$ of the children are boys.

b)



$\frac{2}{4}$ of the animals are cats.

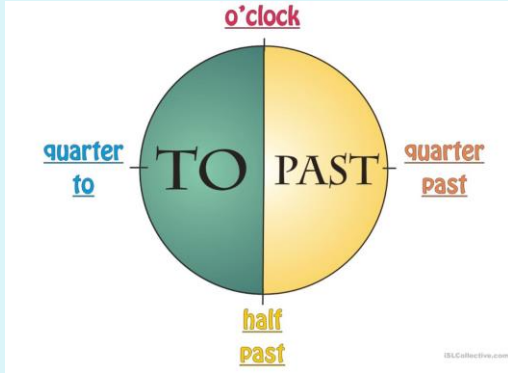


If the denominators are the same, I wonder if non-unit fractions are always greater than unit fractions.

Mental Maths



Read and write the times for half past



Recap

1 minute = 60 seconds

1 hour = 60 minutes

1 day = 24 hours

Half of 1 minute = 30 seconds

Half of 1 hour = 30 minutes

Half of 1 day = 12 hours





16.04.2024

LQ: Can I find halves and quarters of a quantity?



Steps to Success:

I know what a quarter is.

I can find quarters for given amount.

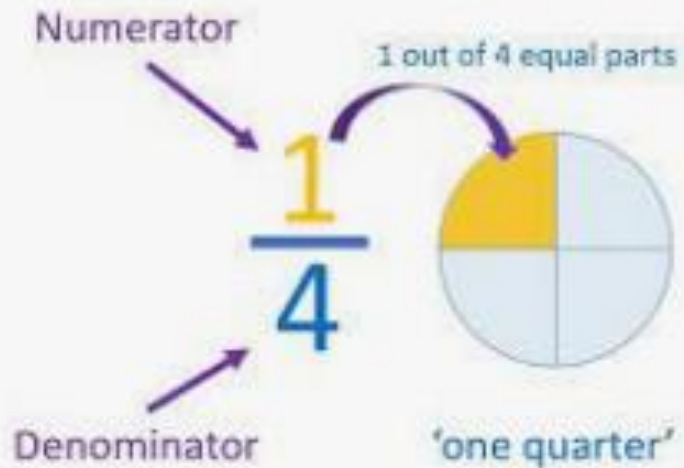
I can record quarters using an efficient strategy.



STAR WORDS



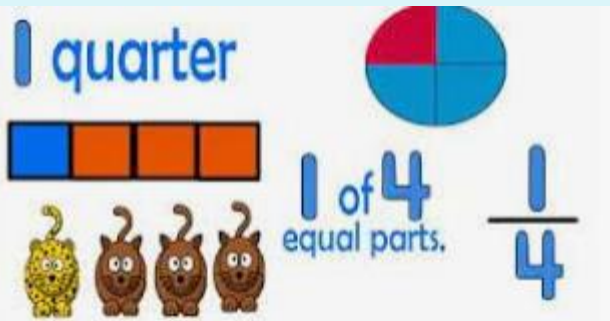
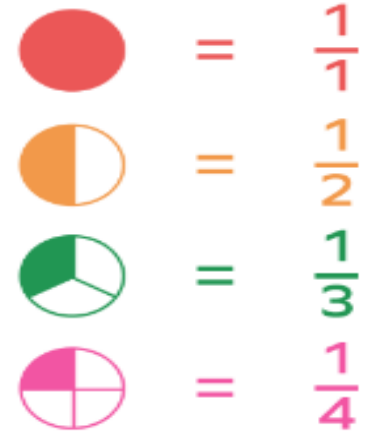
Unit Fractions



Fractions

whole	half	quarter	three-quarters
one	half	quarter	three-quarters
1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$

Unit Fraction



NON-UNIT FRACTIONS

YEAR 7 - NUMBER - FRACTIONS

$\frac{2}{4}$ $\frac{2}{3}$ $\frac{3}{4}$

16.04.2024

LQ: Can I find halves and quarters of a quantity?



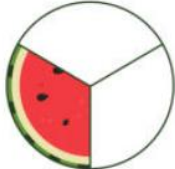
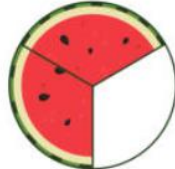




What does fraction mean?

Equal parts of a whole.

$\frac{1}{2}$	$\frac{2}{4}$
$\frac{1}{4}$	$\frac{3}{4}$

What do these symbols mean?

	1		$\frac{1}{2}$
	$\frac{1}{3}$		$\frac{2}{3}$
	$\frac{1}{4}$		$\frac{3}{4}$

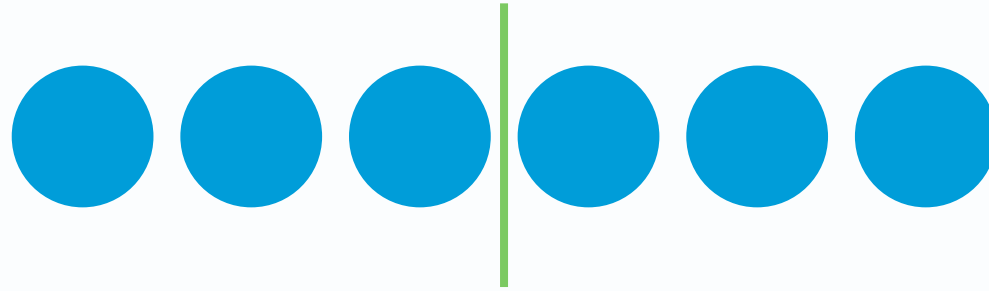
Self assessment

Do you understand what fraction means?



Finding Half ($\frac{1}{2}$)

To find half of a number, you need to divide the number by two.



$$6 \div 2 = 3$$

so

$$\frac{1}{2} \text{ of } 6 = 3$$

16.04.2024

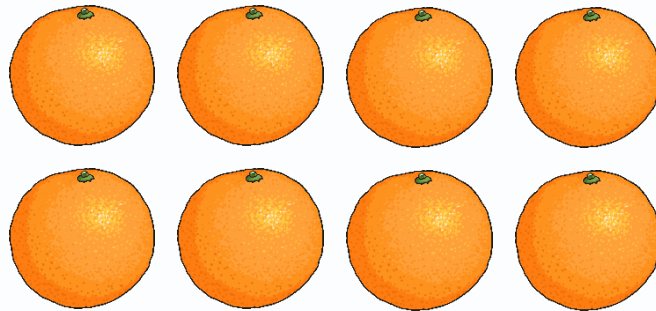
LQ: Can I find halves and quarters of a quantity?

Finding Half ($\frac{1}{2}$)

Can you find $\frac{1}{2}$?

$$\frac{1}{2} \text{ of } 8 = 4$$

$$8 \div 2 = 4$$



So half of 8 is 4

16.04.2024

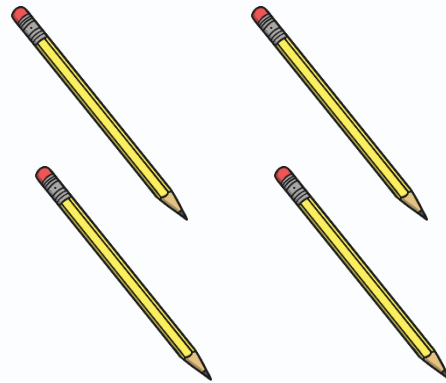
LQ: Can I find halves and quarters of a quantity?

Finding Half ($\frac{1}{2}$)

Amina has 4 pencils, she wants to put half of them in her pencil case. How many pencils will she put in her pencil case?

$$\frac{1}{2} \text{ of } 4 = 2$$

$$4 \div 2 = 2$$



So half of 4 is 2

She will put 2 pencils in her pencil case.

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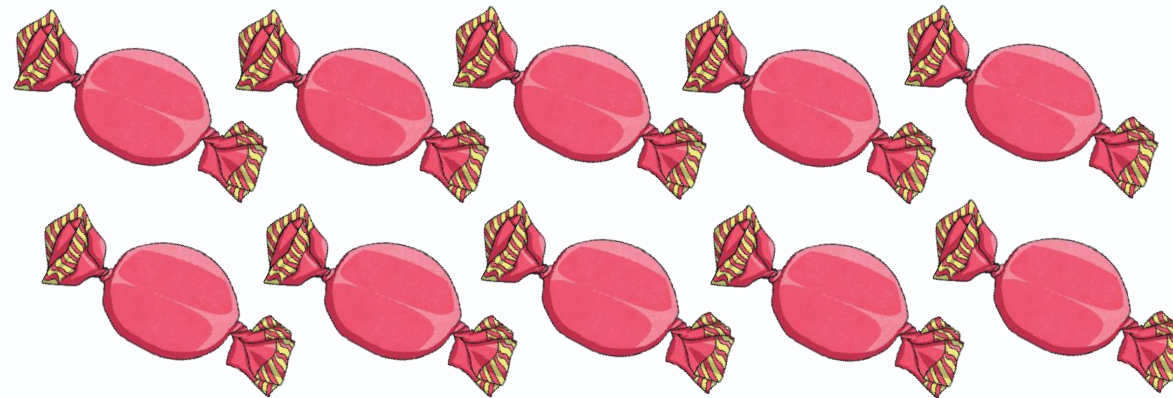
LQ: Can I find halves and quarters of a quantity?

Finding Half ($\frac{1}{2}$)

Liam has ten sweets, he gives half to his sister. How many sweets will they each get?

$$\frac{1}{2} \text{ of } 10 = 5$$

$$10 \div 2 = 5$$



So half of 10 is 5

They will get 5 sweets each.

Self assessment

Do you understand how to find half of a quantity?

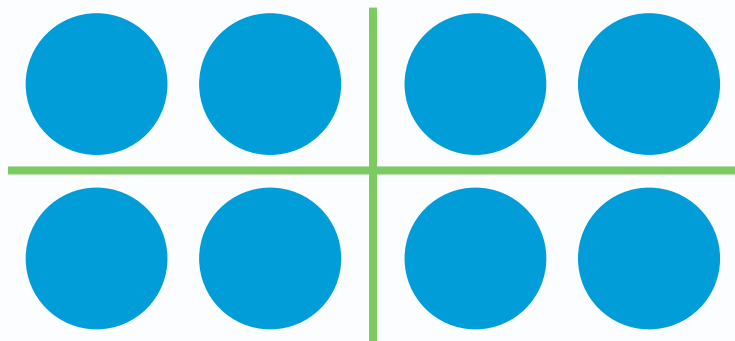


16.04.2024

LQ: Can I find halves and quarters of a quantity?

Finding a Quarter ($\frac{1}{4}$)

To find a quarter of a number, you need to divide the number by four.



$$8 \div 4 = 2 \quad \text{so} \quad \frac{1}{4} \text{ of } 8 = 2$$

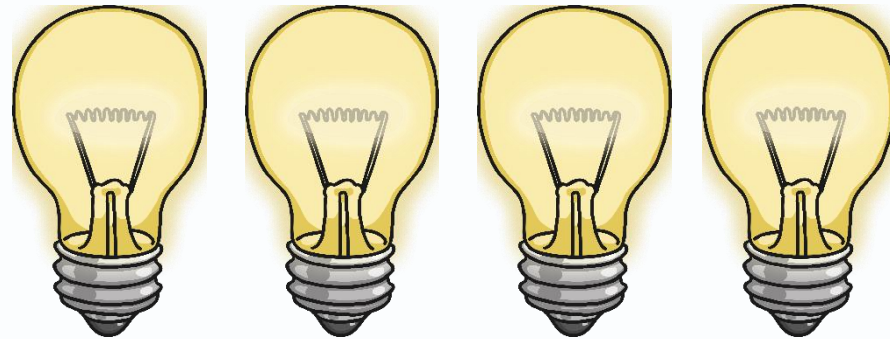
LQ: Can I find halves and quarters of a quantity?

Finding a Quarter ($\frac{1}{4}$)

Can you find $\frac{1}{4}$?

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

$$4 \div 4 = 1$$



So a quarter of 4 is 1



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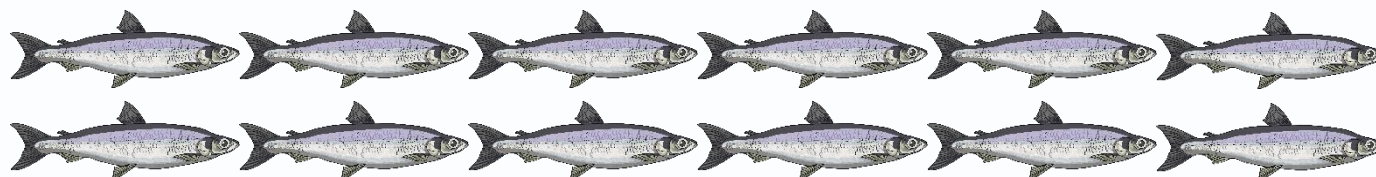
LQ: Can I find halves and quarters of a quantity?

Finding a Quarter ($\frac{1}{4}$)

A cat has 12 fish. It shares them between her four kittens. How many fish will each kitten get.

$$\frac{1}{4} \text{ of } 12 = 3$$

$$12 \div 4 = 3$$



So a quarter of 12 is 3

They will get 3 fish each.

Self assessment

Do you understand how to find a quarter of a quantity?



16.04.2024

LQ: Can I find halves and quarters of a quantity?

Complete the tasks in your book.

Self assessment

Do you understand how to record halves and quarters for fraction?



★ 1/4, half, 1/2, how much?, equal parts, quarters ★

1.
Find $\frac{1}{4}$ of
8 20 24

Record using the written method.
E.g. $\frac{1}{4}$ of ____
= ____

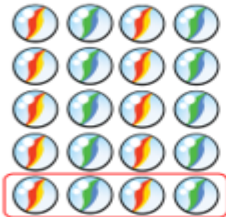
Find $\frac{1}{2}$ of
8 16 24

Record using the written method.
E.g. $\frac{1}{2}$ of ____
= ____

2.
Eva says,

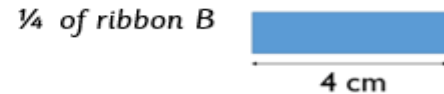


I have $\frac{1}{4}$ because I have 4 marbles.

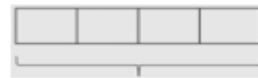


Do you agree? Explain why.

3.
Mo has two ribbons. He cuts $\frac{1}{4}$ from each ribbon.



Use the bar model to help you solve the problem.



How long were Mo's whole pieces of ribbon?
Which ribbon was the longest? How much longer?

17.04.2024

Mental Maths

$2 \div 2 =$	$4 \div 2 =$	$50 \div 5 =$	$30 \div 5 =$
$12 \div 2 =$	$55 \div 5 =$	$90 \div 10 =$	$90 \div 10 =$
$20 \div 10 =$	$18 \div 2 =$	$80 \div 5 =$	$15 \div 5 =$
$42 \div 2 =$	$6 \div 2 =$	$70 \div 5 =$	$5 \div 5 =$



17.04.2024

LQ: Can I find thirds of a quantity?



Steps to Success:

I know what a third is.

I can find third for given amount.

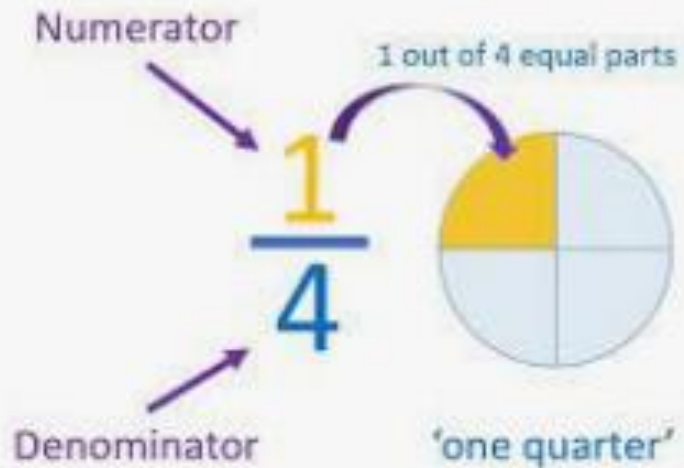
I can record thirds using an efficient strategy.



STAR WORDS



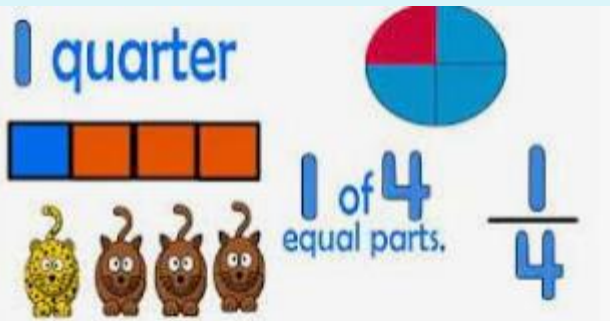
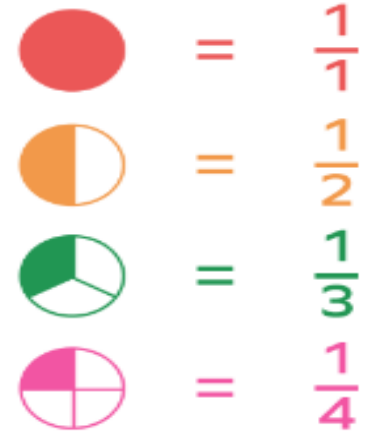
Unit Fractions



Fractions

whole	half	quarter	three-quarters
one	half	quarter	three-quarters
1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$

Unit Fraction



NON-UNIT FRACTIONS

YEAR 7 - NUMBER - FRACTIONS

$\frac{2}{4}$ $\frac{2}{3}$ $\frac{3}{4}$

17.04.2024

LQ: Can I find thirds of a quantity?

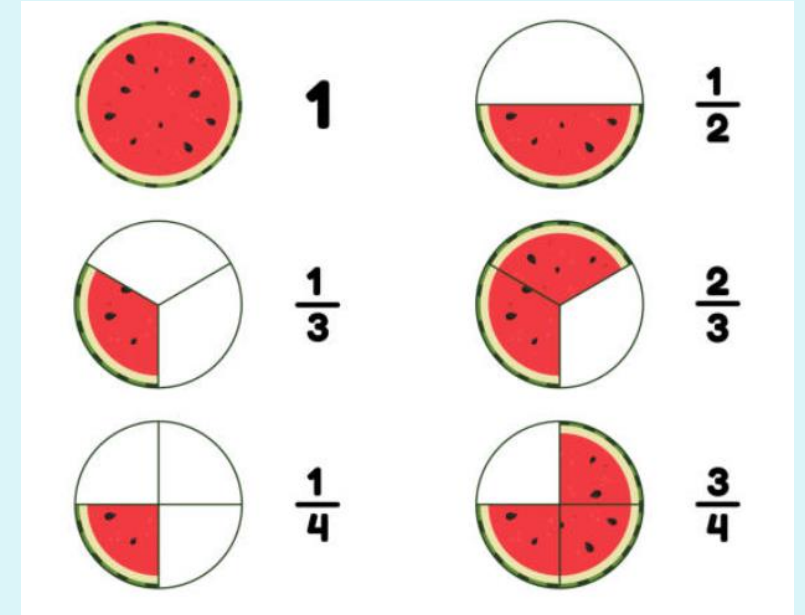


What does fraction mean?

Equal parts of a whole

$\frac{1}{2}$	$\frac{2}{4}$
$\frac{1}{4}$	$\frac{3}{4}$

What do these symbols mean?



Self assessment

Do you understand what fraction means?



LQ: Can I find thirds of a quantity?

Finding One Third ($\frac{1}{3}$)

We divide by 2 to find half ($\frac{1}{2}$),
and 4 to find one quarter ($\frac{1}{4}$).

What do you think we need to divide by to find one third? Have a look at the one third fraction...



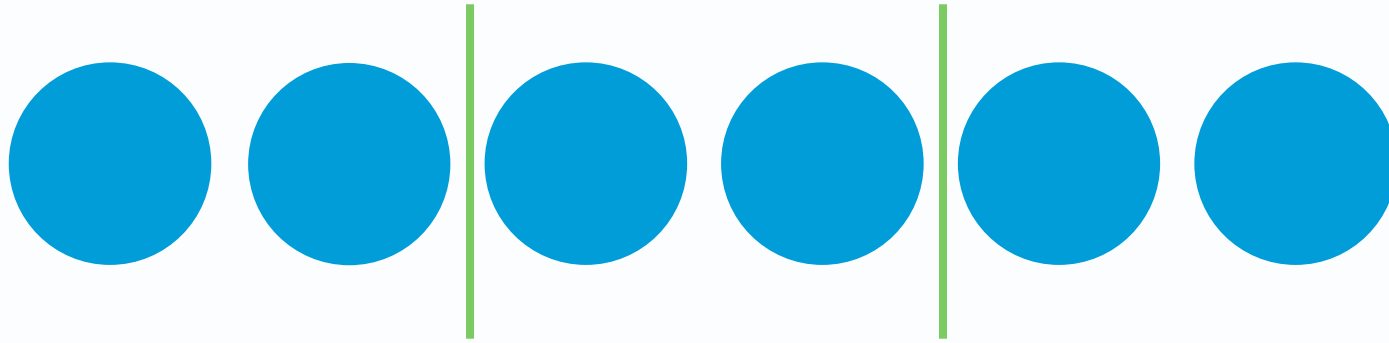
$$\frac{1}{3}$$

You need to divide by 3
to find one third.



Finding One Third ($\frac{1}{3}$)

To find one third of a number, you need to divide the number by three.



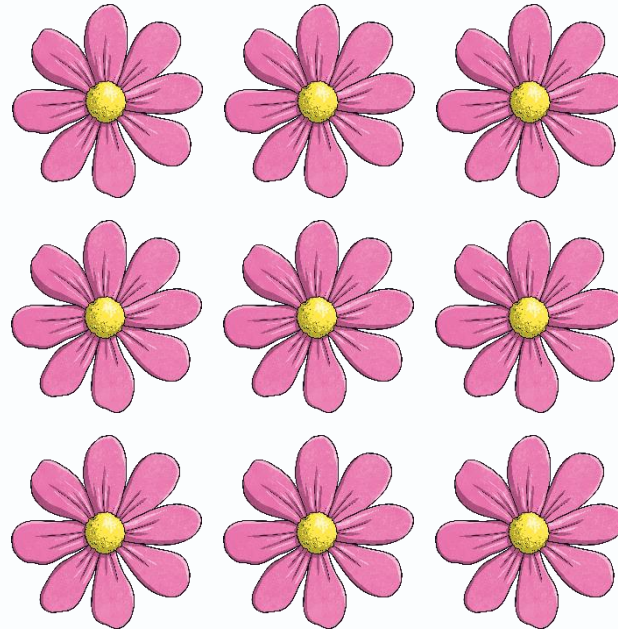
$$6 \div 3 = 2 \quad \text{so} \quad \frac{1}{3} \text{ of } 6 = 2$$

Finding One Third ($\frac{1}{3}$)

Can you find $\frac{1}{3}$?

$$\frac{1}{3} \text{ of } 9 = 3$$

$$9 \div 3 = 3$$



So one third of 9 is 3

17.04.2024

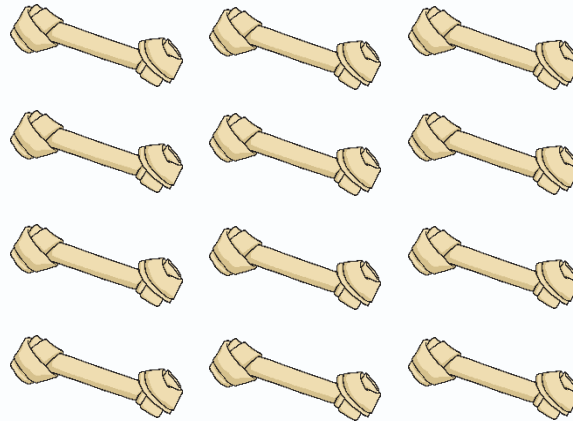
LQ: Can I find thirds of a quantity?

Finding One Third ($\frac{1}{3}$)

There are 12 dog biscuits in a packet. Daniel shares them between his three dogs. How many biscuits will each dog get?

$$\frac{1}{3} \text{ of } 12 = 4$$

$$12 \div 3 = 4$$

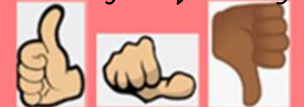


So one third of 12 is 4

They will get 4 biscuits each.

Self assessment

Do you understand how to find third of a quantity?



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LQ: Can I find thirds of a quantity?


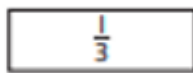

Complete the tasks in your book.

Self assessment

Do you understand how to record thirds for fraction?



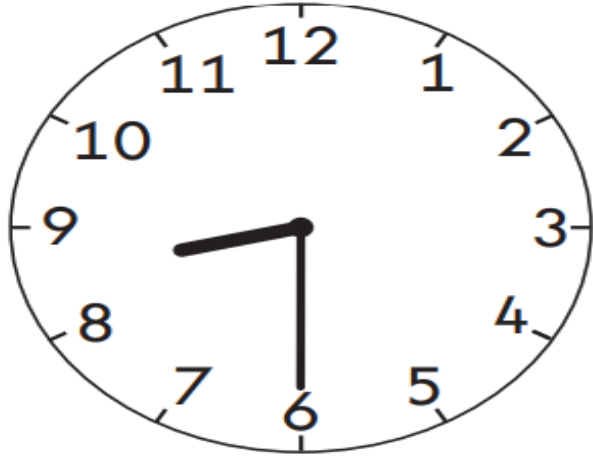
★ $\frac{1}{3}$ third, $\frac{1}{4}$ quarter, half, $\frac{1}{2}$, equal parts, quarters, shaded, unit fractions ★

<p>1. Find $\frac{1}{3}$ of <u>6 12 21</u></p> <p>Record using the written method. E.g. $\frac{1}{3}$ of ____ = ____</p>	<p>2. Draw the rest of each shape from the unit fraction.</p> <p>a)</p>  <p>b)</p> 	<p>3. There are 12 sweets.</p>  <p>Match each unit fraction to the number of sweets. (Use counters)</p> <table border="1"><thead><tr><th>Unit fraction</th><th>Sweets</th></tr></thead><tbody><tr><td>$\frac{1}{2}$</td><td>3</td></tr><tr><td>$\frac{1}{3}$</td><td>6</td></tr><tr><td>$\frac{1}{4}$</td><td>4</td></tr></tbody></table>	Unit fraction	Sweets	$\frac{1}{2}$	3	$\frac{1}{3}$	6	$\frac{1}{4}$	4
Unit fraction	Sweets									
$\frac{1}{2}$	3									
$\frac{1}{3}$	6									
$\frac{1}{4}$	4									

18.04.2024

Mental Maths

11



What time does the clock show?

Tick the correct box.

twenty to 6

half past 9

half past 8

quarter to 6

$9 \times 5 =$

$2 \times 6 =$

$10 \times 5 =$

$4 \times 10 =$

$11 \times 10 =$

$10 \times 6 =$

$7 \times 10 =$

$12 \times 10 =$

$5 \times 5 =$

$9 \times 2 =$

$2 \times 8 =$

$7 \times 2 =$

18.04.2024



LQ: Can I recognise unit fractions?

Steps to Success:

I know what a unit fraction is.

I can find a unit fraction.

I can record a unit fraction using an efficient strategy.

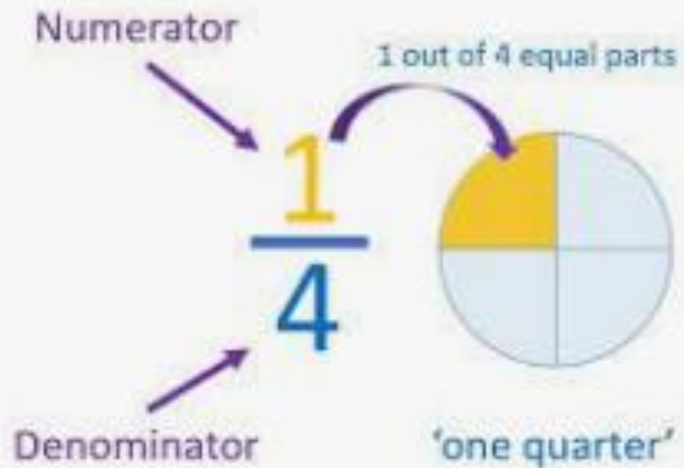




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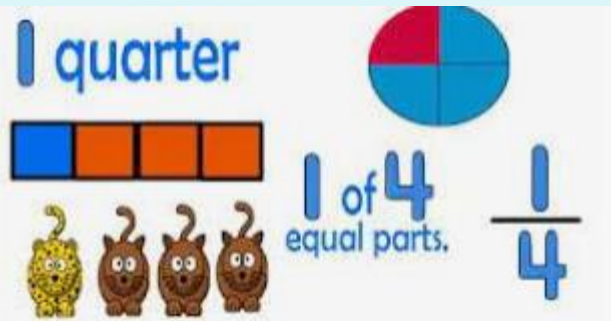
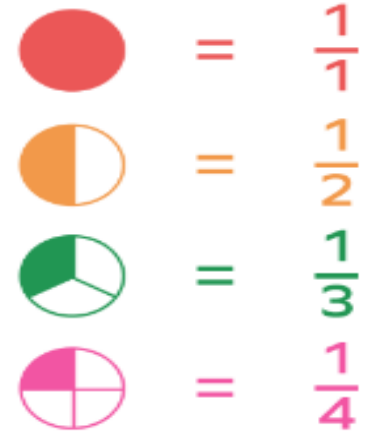
Unit Fractions



Fractions

whole	half	quarter	three-quarters
one	half	quarter	three-quarters
1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$

Unit Fraction



NON-UNIT FRACTIONS

YEAR 7 - NUMBER - FRACTIONS

$\frac{2}{4}$ $\frac{2}{3}$ $\frac{3}{4}$

18.04.2024

LQ: Can I recognise unit fractions?

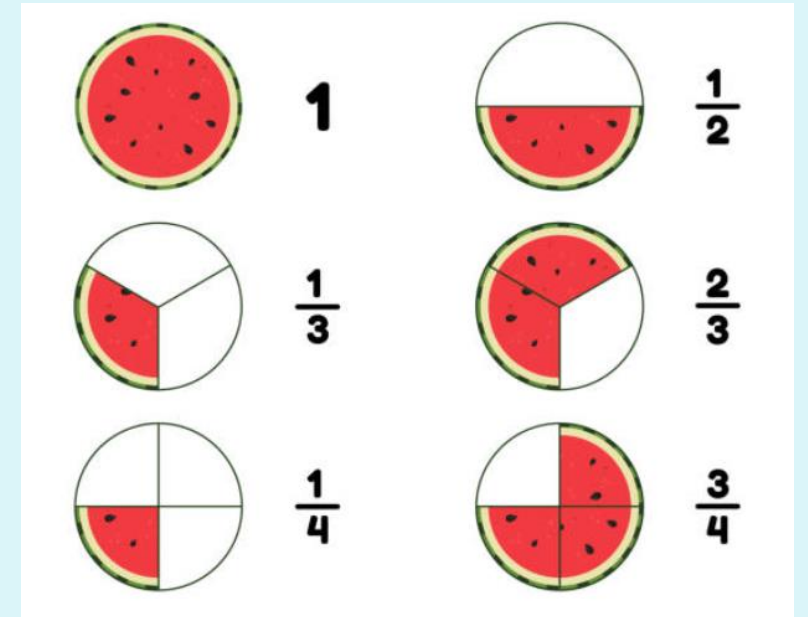


What does fraction mean?


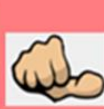

Equal parts of a whole

$\frac{1}{2}$	$\frac{2}{4}$
$\frac{1}{4}$	$\frac{3}{4}$

What do these symbols mean?



Self assessment
Do you understand what fraction means?

18.04.2024

LQ: Can I recognise unit fractions?

Today we are going to learn about unit fractions.

TP: What fraction of  is each stripe?

- What fraction of  is each stripe?
- What is the same and what is different about
- the flags?

Sentence starter:

I know that each stripe is part.

I know that the fraction of each stripe isbecause



This flag has 2 equal parts altogether. Each stripe is 1 part. Each strip is $\frac{1}{2}$ of the flag.



This flag has 3 equal parts altogether. Each stripe is 1 part. Each stripe is $\frac{1}{3}$ of the flag.

We call the fraction $\frac{1}{3}$ one third.

18.04.2024

LQ: Can I recognise unit fractions?

Let's practice finding $\frac{1}{3}$.

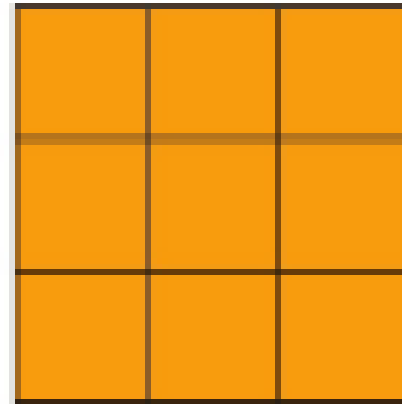
TP: Is he right?



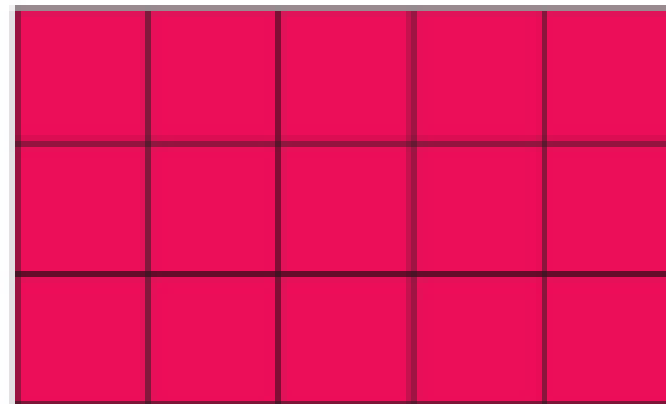
I think I need to divide each into 3 equal parts.



$$\frac{1}{3} \text{ of } 6 = \square$$



$$\frac{1}{3} \text{ of } 9 = \square$$



$$\frac{1}{3} \text{ of } 15 = \square$$

18.04.2024

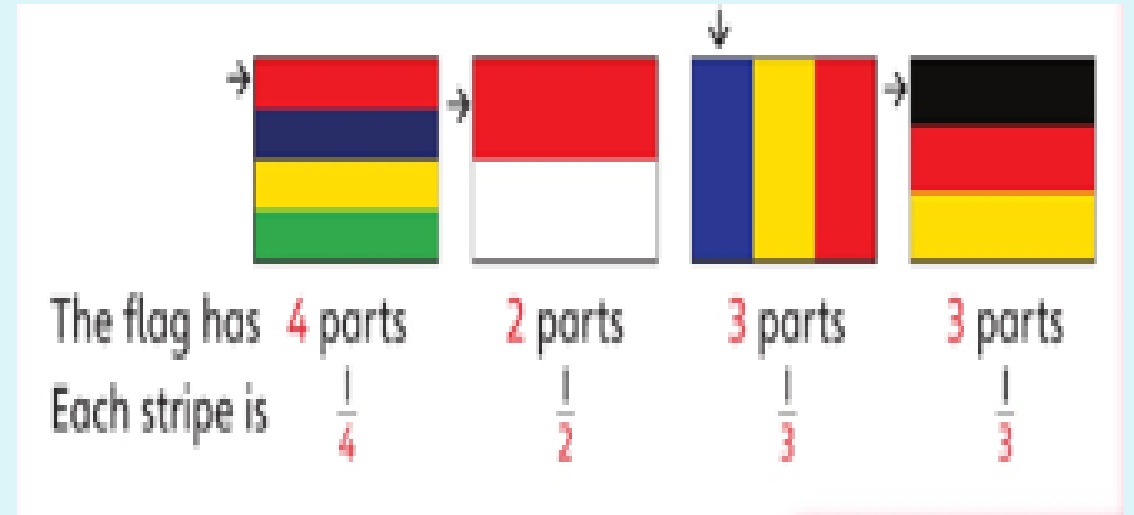
LQ: Can I recognise unit fractions?

Each flag is split into equal parts.

The number of **equal parts** is different.

The **numerator** of each fraction is 1.

The number of equal parts is the **denominator** of the fraction.

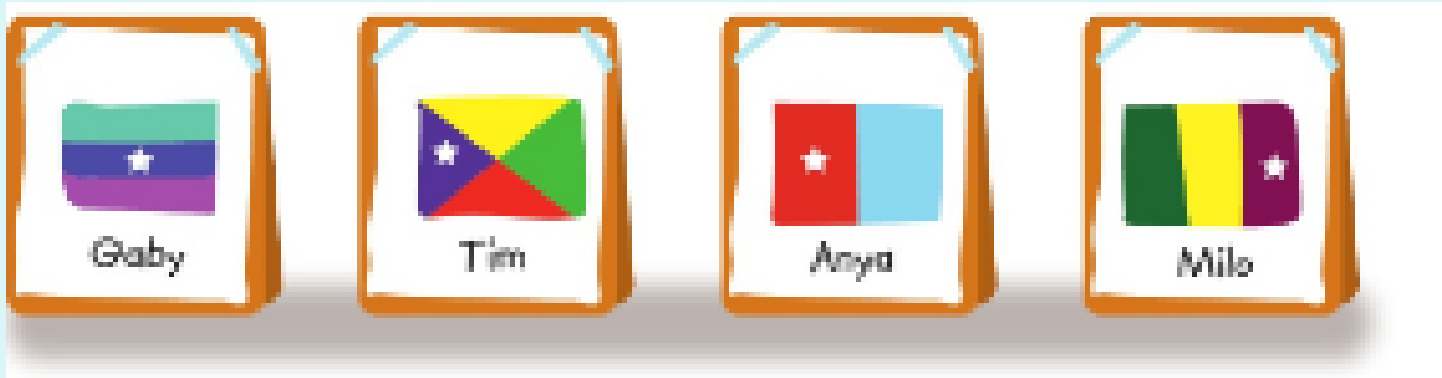


A fraction where the numerator is 1 is called a **unit fraction**.

18.04.2024

LQ: Can I recognise unit fractions?

Class 2 have been making their own flags.



What fraction of each flag has a star?

$\frac{\square}{3}$ of Gaby's flag has a star.

$\frac{1}{\square}$ of Tim's flag has a star.

$\frac{\square}{\square}$ of Anya's flag has a star.

$\frac{\square}{\square}$ of Milo's flag has a star.

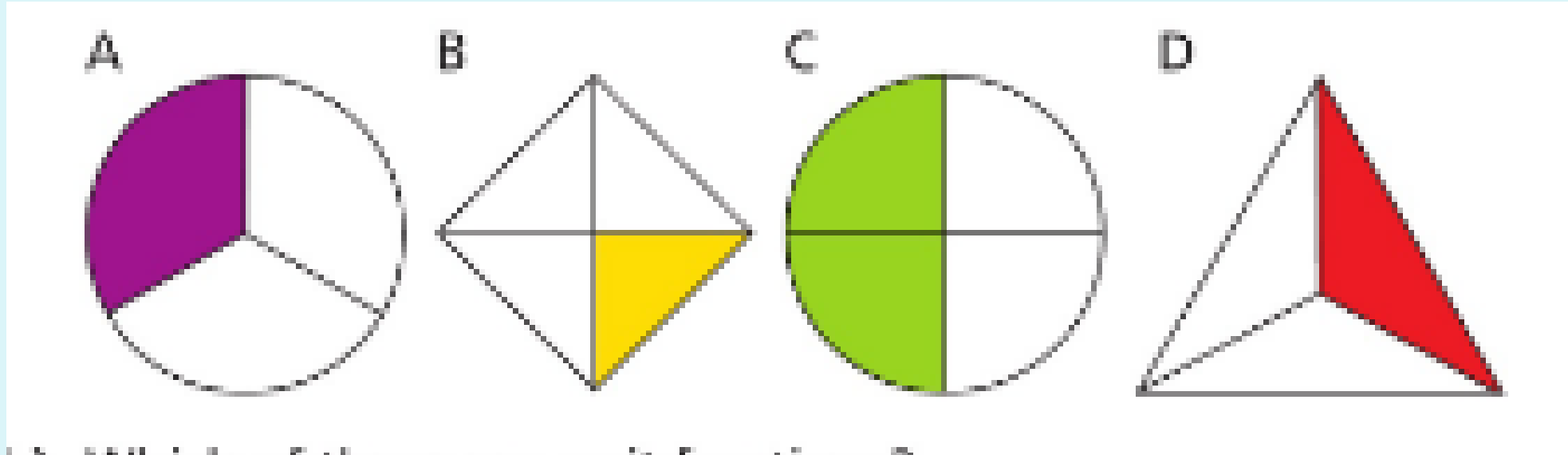
18.04.2024

LQ: Can I recognise unit fractions?

What fraction of each shape is shaded?

Self assessment

Do you understand what unit fractions are?



Which of these are unit fractions?

Explain how you know.

18.04.2024

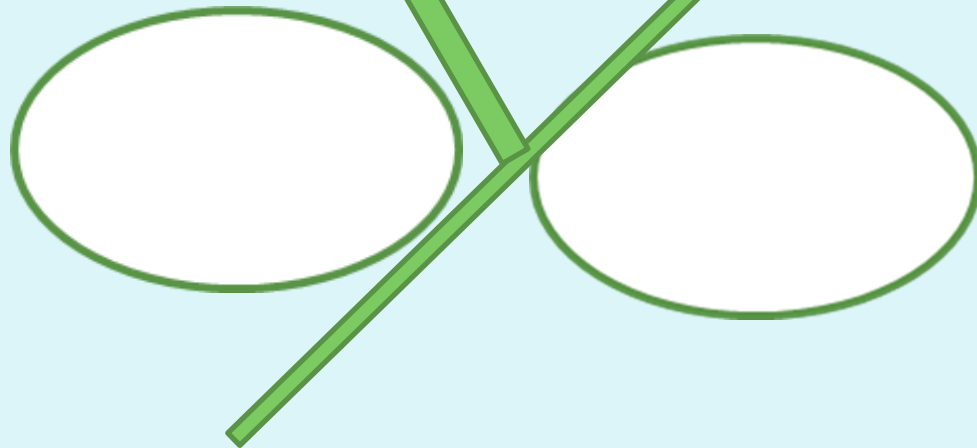
LQ: Can I recognise unit fractions?

6 9 15

Let's find $\frac{1}{3}$ for these amounts.

Remember to share them out into 3 equal parts

$\frac{1}{3}$ of ___ = ___



$\frac{2}{3}$ of ___ = ___

18.04.2024

LQ: Can I recognise unit fractions?

Self assessment

Do you understand what to do?



Complete the tasks in your book.



Fractions, quarter, third, half,



1.
Find the amount of a number.
 $\frac{3}{4}$ of 12
 $\frac{1}{2}$ of 50
 $\frac{1}{4}$ of 44
 $\frac{2}{4}$ of 44
 $\frac{3}{4}$ of 44
 $\frac{1}{3}$ of 21
 $\frac{2}{3}$ of 21
 $\frac{1}{2}$ of _____ = 5
 $\frac{1}{2}$ of _____ = 25

2.
Eva says, ' $\frac{1}{2}$ of 20 is more than a $\frac{3}{4}$ of 16.' Is she right?



3.
Lorna got £20 for her birthday. She spent £10 on a DVD, £2 on a magazine and £3 on a football. What fraction of her birthday money did she have left?



19.04.2024



Mental Maths

Use the mini clocks to make these times.



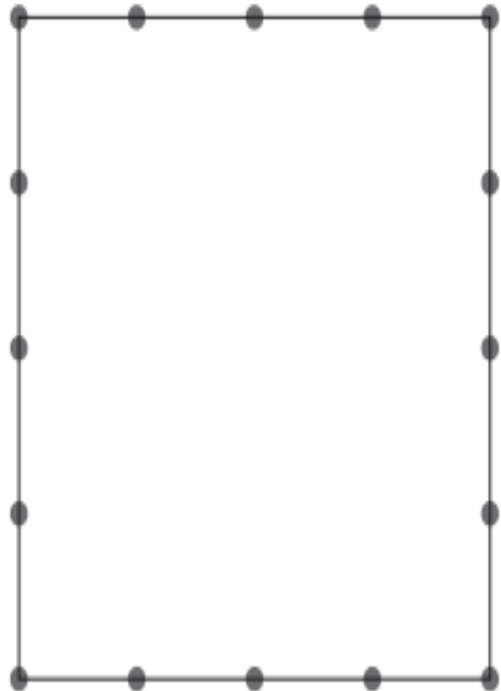
3 o'clock 5 o'clock 1 o'clock 7 o'clock

half past 3 , half past 5 , half past 1, half past 7, half past 8

Mental Maths



Draw **two lines** to divide the square into **quarters**.



$10 \times 7 =$

$12 \times 5 =$

$10 \times 3 =$

$10 \times 8 =$

$10 \times 12 =$

$4 \times 10 =$

$5 \times 0 =$

$10 \times 1 =$

$12 \times 10 =$

$1 \times 5 =$

19.04.2024



LQ: Can I recognise non unit fractions?

Steps to Success:

I know what a non unit fraction is.

I can find a non unit fraction.

I can record a non unit fraction using an efficient strategy.

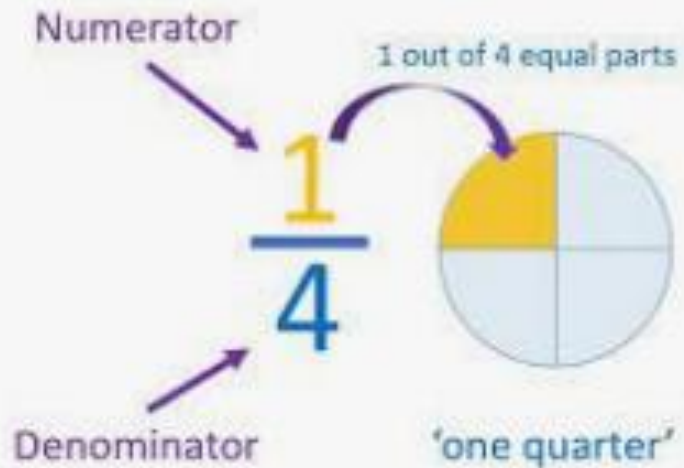




STAR WORDS



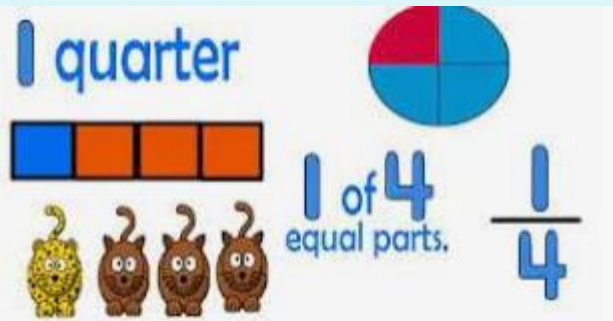
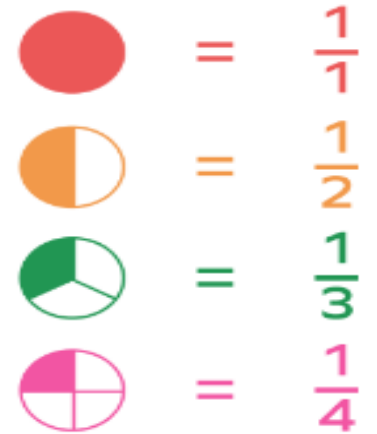
Unit Fractions



Fractions

whole	half	quarter	three-quarters
one	half	quarter	three-quarters
1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$

Unit Fraction



NON-UNIT FRACTIONS

YEAR 7 - NUMBER - FRACTIONS

$\frac{2}{4}$ $\frac{2}{3}$ $\frac{3}{4}$

19.04.2024

LQ: Can I recognise non unit fractions?



What does fraction mean?

Equal parts of a whole

$\frac{1}{2}$	$\frac{2}{4}$
$\frac{1}{4}$	$\frac{3}{4}$


What is a unit fraction?

A fraction where the numerator is 1 is called a **unit fraction**.

Self assessment

Do you understand what fraction means?

Do you understand what is a unit fraction?



19.04.2024

LQ: Can I recognise non unit fractions?



TP: What fraction of the children are boys?

What fraction of the children are girls?

19.04.2024

LQ: Can I recognise non unit fractions?



There are **3** children. The denominator is **3**.

1 of the children is a boy.

The numerator is **1**.

1/3 of the children are boys.

2 of the children are girls.

The numerator is **2**.

2/3 of the children are girls.

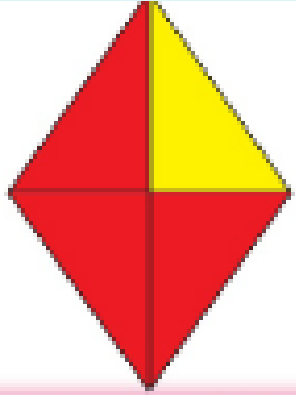
$\frac{1}{3}$ is a unit fraction because the numerator is 1. $\frac{2}{3}$ and $\frac{3}{4}$ are **non-unit fractions**.
What do you notice about the numerators?

rs.

A cartoon illustration of a ginger and white cat sitting in the bottom right corner of the text box.

19.04.2024

LQ: Can I recognise non unit fractions?



TP: How many equal parts?

How many red equal parts?

How many yellow equal parts?

Can you write a fraction?

Is this a unit or non-unit fraction?

$\frac{3}{4}$ of the kite is red.

The denominator is 4.

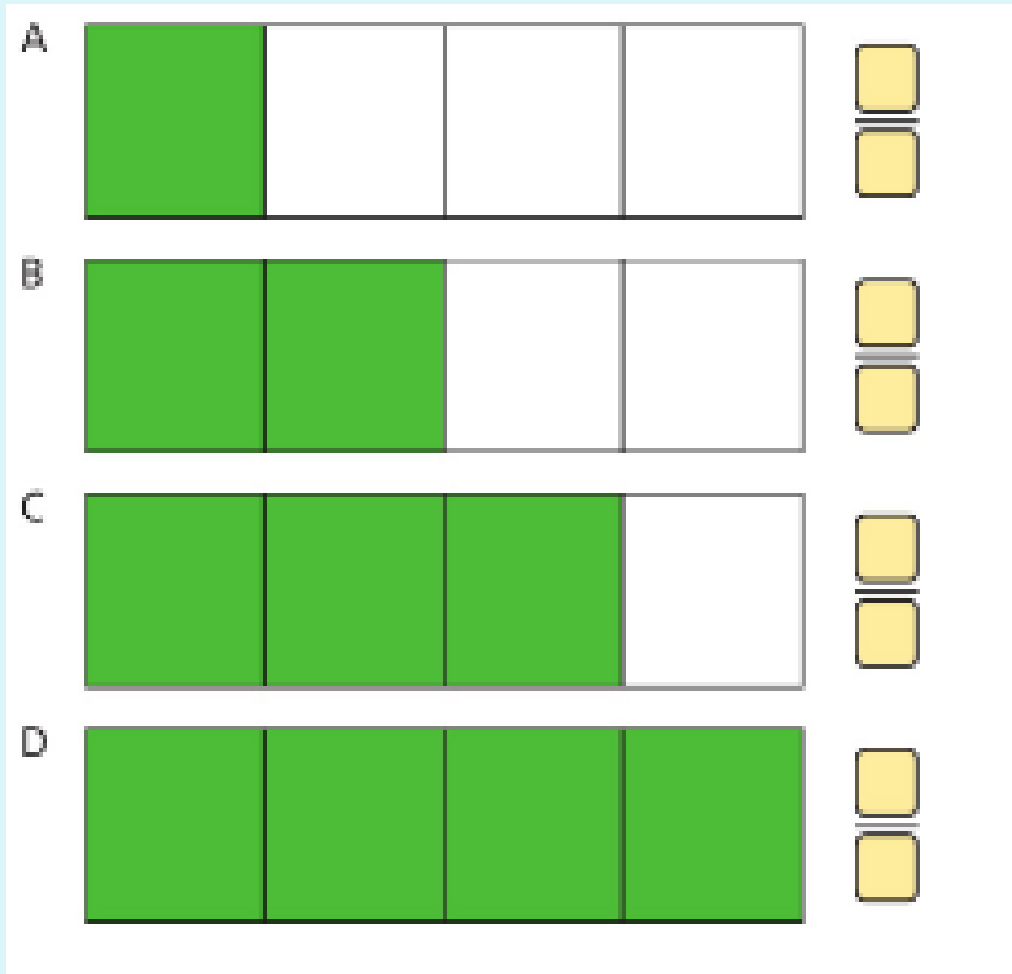
So there are 4 equal parts.

The numerator is 3.

So 3 parts are red.

19.04.2024

LQ: Can I recognise non unit fractions?



TP: What fraction of each shape is shaded?

Which diagram has the whole shaded?

What fraction is non unit fraction?

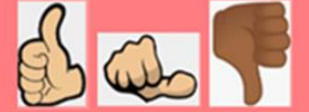
19.04.2024

LQ: Can I recognise non unit fractions?

Complete the tasks in your book.

Self assessment

Do you understand what to do?



1. Find amounts.

- $\frac{3}{4}$ of 12 =
- $\frac{1}{3}$ of 15 =
- $\frac{1}{4}$ of 8 =
- $\frac{2}{4}$ of 12 =
- $\frac{1}{4}$ of 40 =
- $\frac{1}{2}$ of 50 =

Draw a circle.
Divide into equal parts.
Share amounts.
Record using the written method.
E.g. $\frac{2}{3}$ of ____ = ____

2. a. Which kites show $\frac{3}{4}$ shaded?
b. Which kites have a unit fraction shaded?
c. Which kites have non-unit fraction shaded?



- a. show $\frac{3}{4}$ shaded.
- b. have a unit fraction shaded.
- c. have non-unit fraction shaded.

3. Alex is folding two identical paper strips.



I think $\frac{1}{4}$ of the strip will be bigger than $\frac{1}{2}$ of the strip because 4 is bigger than 2

Use paper strips to prove Alex is incorrect. Stick them in a book.
I agree/ disagree because