

Welcome to Year 3 live maths lesson

The session will begin at 11.15





Turn your camera and microphone off please

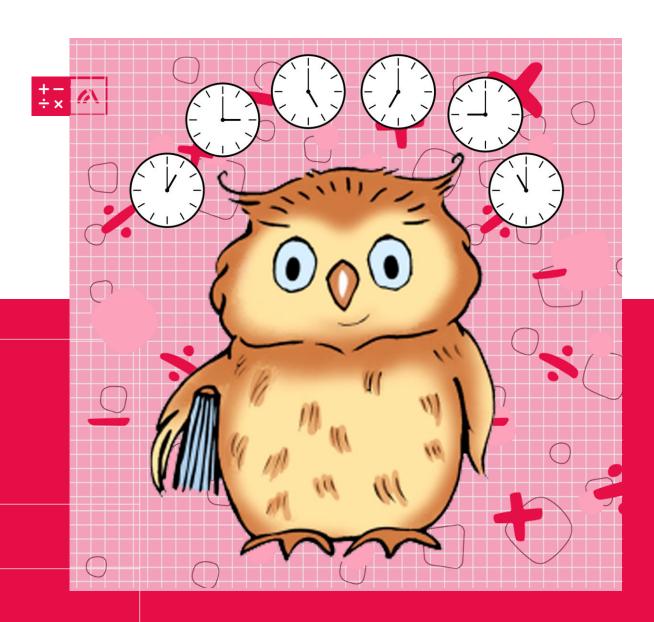
Ark Curriculum+

Monday 22.2.21 Live maths



Lesson 1: Developing conceptual understanding of time

Mathematics **Mastery**







- Subtract 20 from 200.
 - 180
- What is the total of 38 and 41?
 - •79
- Double 23
 - •46
- What is half of 60?
 - •30

Which are the even numbers.

How do you know?

72

46

34

4 hundreds, 5 tens 6 ones

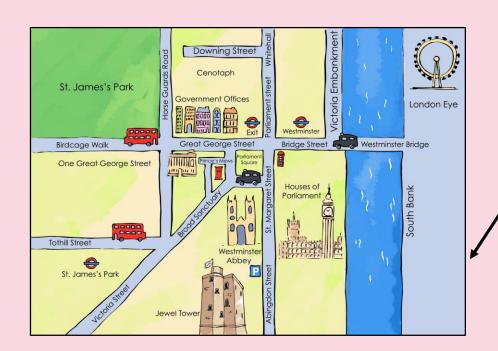






Introducing the problem

Mr Slade is running a school trip to London. There are lots of things that he would like to do with his class but there is only so much time in the day





I will understand that clocks are measuring devices with more than one scale









hour hand

quarter minute hand













What are these used for? How do we use them?

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 26 23 24 25 27 28 29 30...



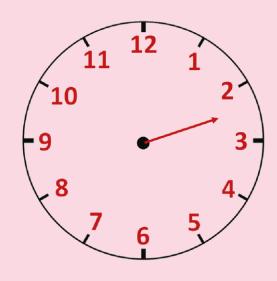




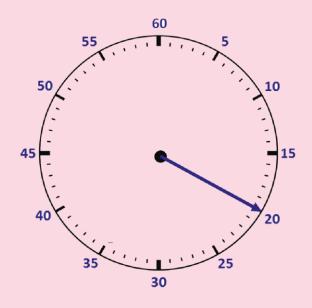


What does each clock face show us?

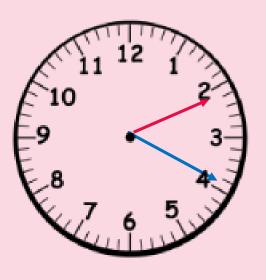
What is the same? What is different?



The numbers and the hand that reads the hours.



The numbers and the hand that reads the minutes.



A clock which shows us the hours and the minutes.

If we unravel the number scales on a clock this is what we would see.

The hours.





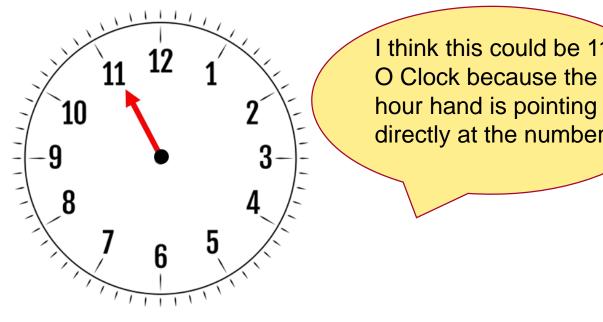


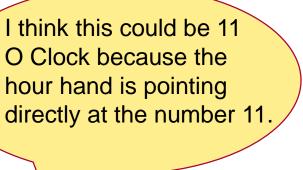


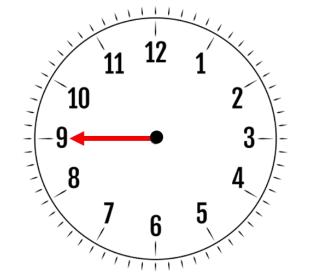


These clocks only have the hour hand.

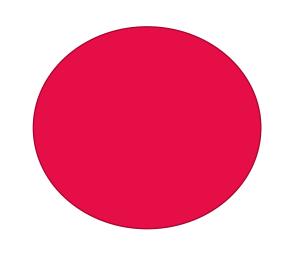
Can you write down the time you think each clock might be showing?



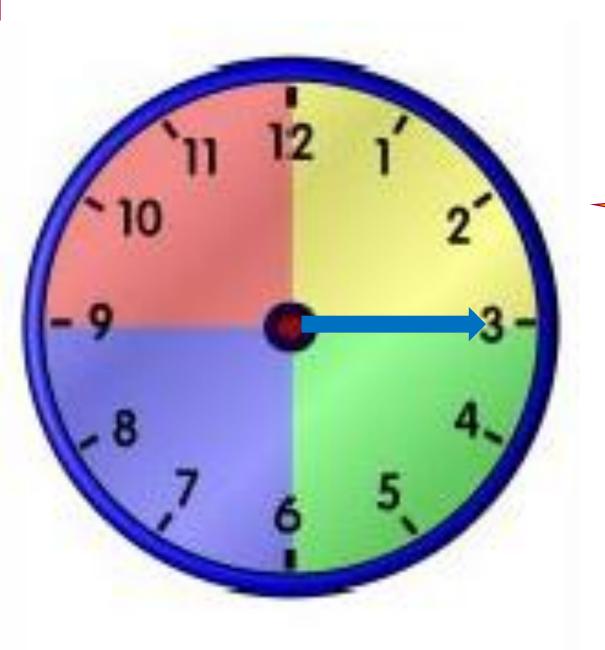












We can split the clock into 4 equal parts. What do we call 4 equal parts?

Quarters!

So when the minute hand points to the numbers on each quarter we know that clock reads these times;

3 It is now **quarter past** the hour

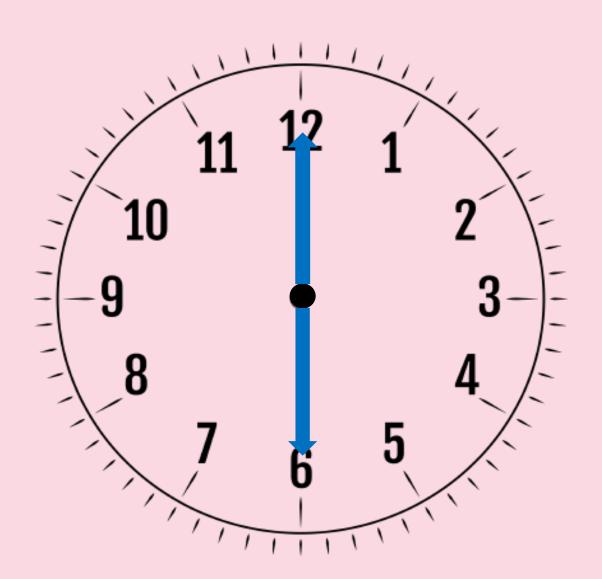


So when the minute hand points to the numbers on each quarter we know that clock reads these times;

It is now **half past** the hour

It is now quarter to the hour

What do we know about 'minutes' hand?

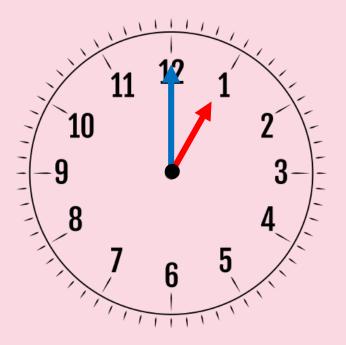


When the minute hand points straight up to the 12. What does this say?

When the minute hand points straight down to the 6, it is HALF WAY around the clock.
What does this say?

How many minutes are there in one hour? So that's how long does the minute hand take to travel all the way round the clock.

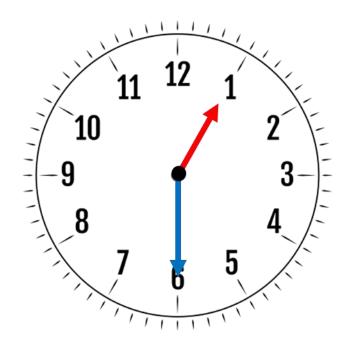
We do

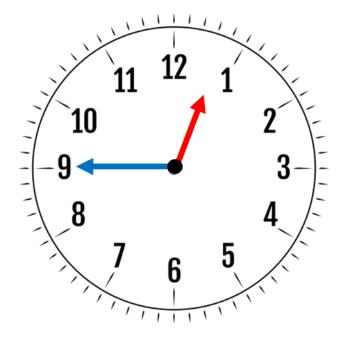


What is the time on this clock?

Look at the hour hand. Look at the minute hand.

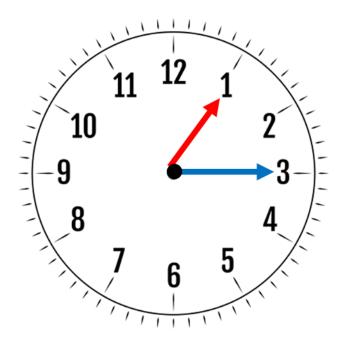
You do

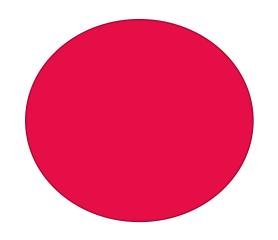




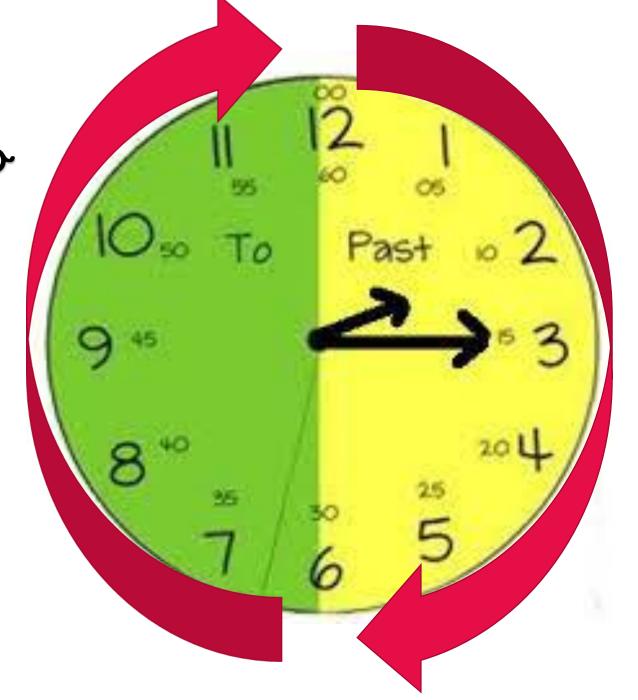
What is the time on this clock?

Look at the hour hand. Look at the minute hand.





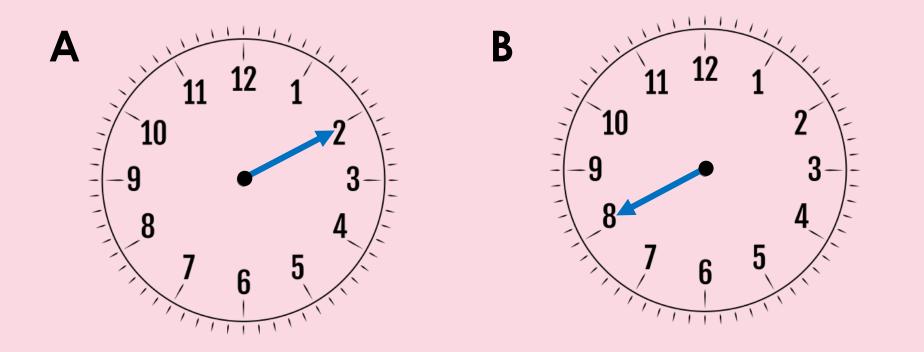
minutes to



minutes past

Have a think, what does these clocks tell us? They don't have an hour hand but we can read the minutes.

Are they minutes past or minutes to the hour?



Assignment

Go and find your assignment in the general folder.

Choose your chilli.



Click the Editing button so you can type straight onto your task sheet. If you can't write on the assignment sheet you can copy it onto paper and take a photograph of it.

Fast finish challenge

If it takes 2 minutes to run around the playground How many seconds is that?

If it takes 4 minutes to walk home, How many seconds is that?

If it takes 10 minutes to read my book, How many seconds is that?



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Tuesday 23.2.21 Live maths

Year 3 Unit 8: Time

: Reading analogue time with increasing accuracy

Mathematics **Mastery**





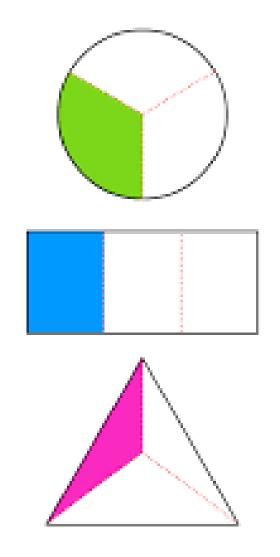
123456789

How many different ways can you make 15 using these digits?

With 2 digits? With 3 digits?

CHALLENGE – can you use a different operation?

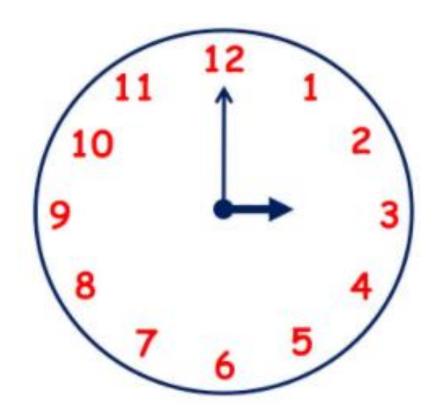
What fraction do these shapes show?

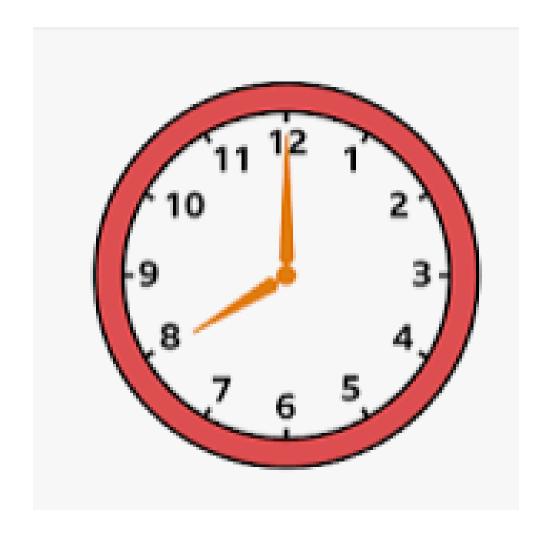


How do you know?



What's the time Mr Wolf?





Do now

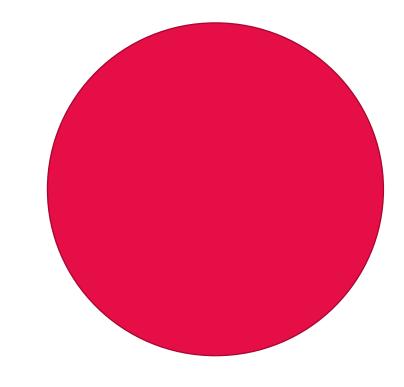
 $8 \times 1 =$

 $8 \times 10 =$

 $8 \times 100 =$

 $8 \times 1000 =$

What is the secret?











big hand (minute hand)

little hand (hour hand)



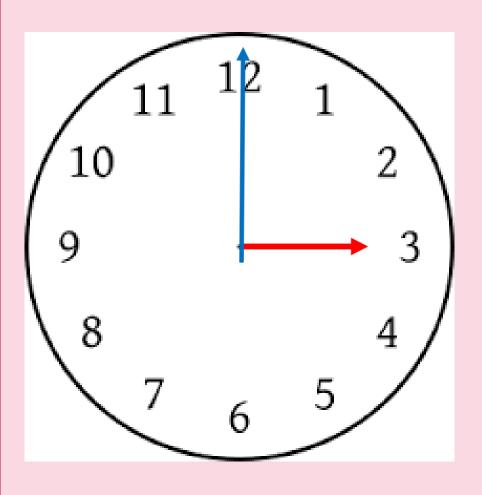
half past O'clock quarter past







Which hand tells us the hour?

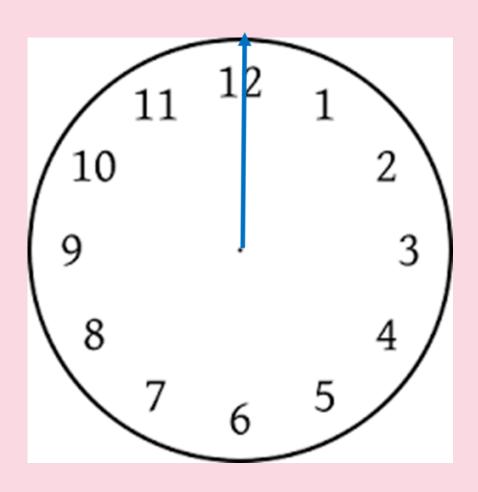


The little hand.

Which hand tells us the minutes?

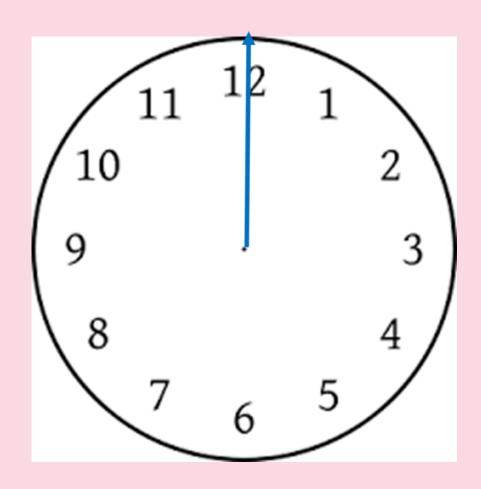
The big hand.

When the big minute hand points straight up to the 12 it is O'clock



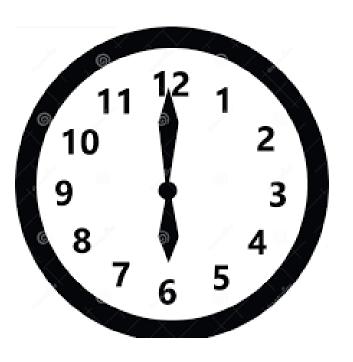
The little hand reads the hour. So whichever number the little hand points to that is the hour.

When the big minute hand points straight up to the 12 it is O'clock

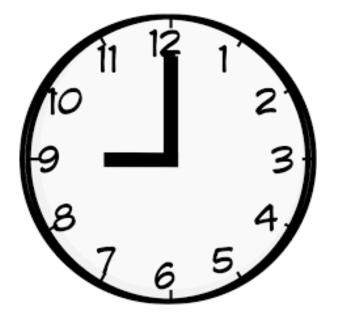


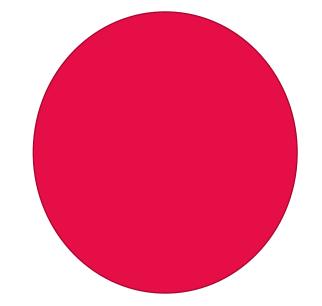
Let's practise telling O'clock times.

You do

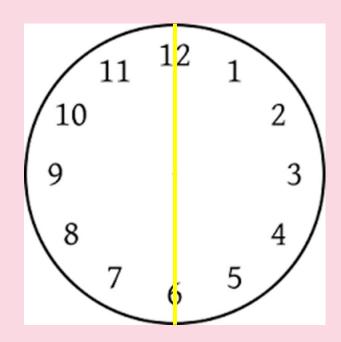


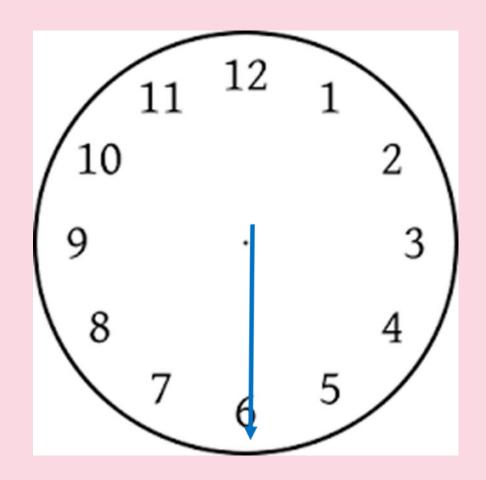


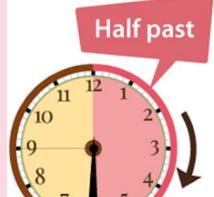




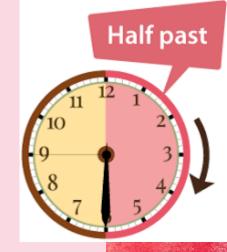
When the big minute hand travels HALF way around the clock it now reads half past

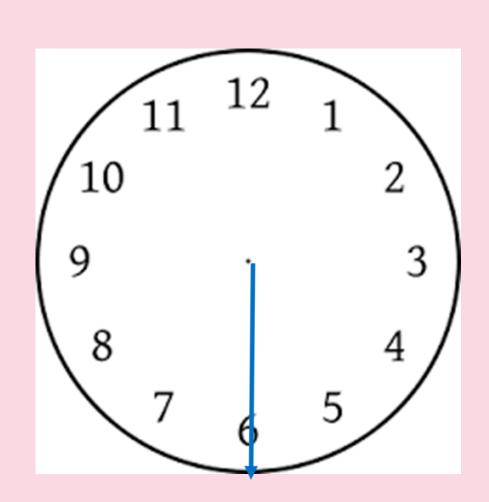






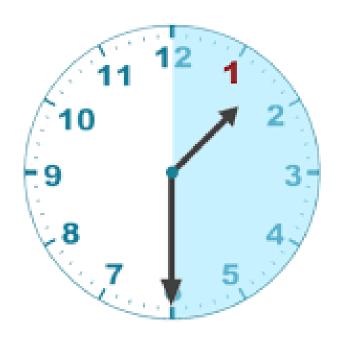
When the big minute hand travels HALF way around the clock it now reads half past





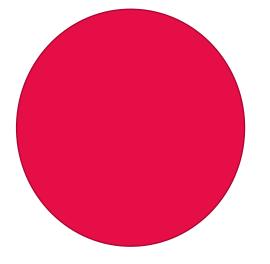
Let's practise telling Half past times.

You do

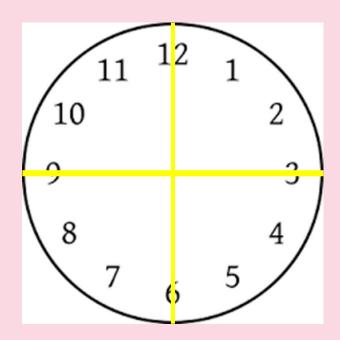


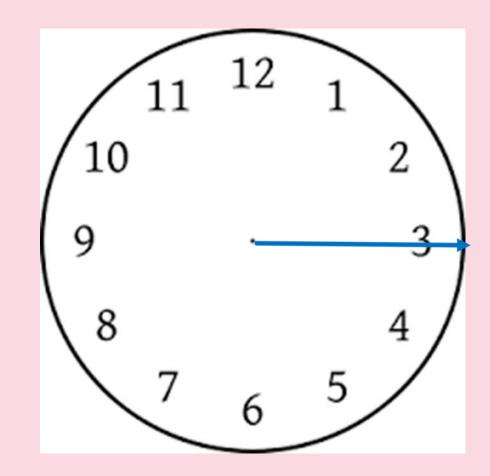






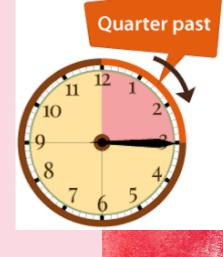
When the big minute hand travels a quarter way around the clock it now reads quarter past

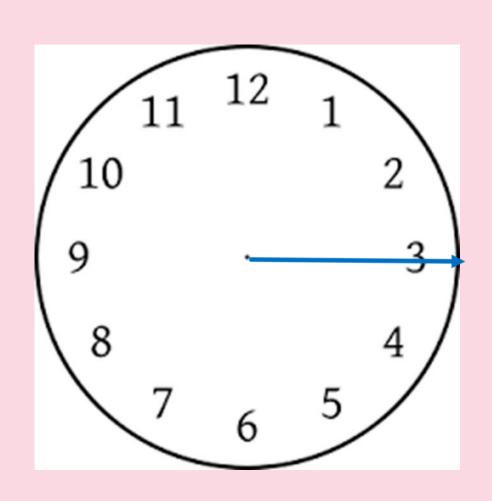




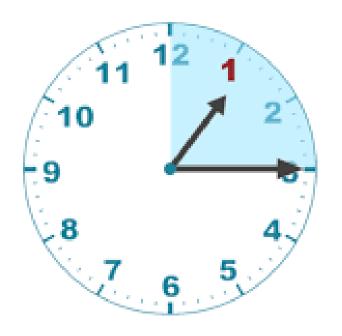


When the big minute hand travels a quarter way around the clock it now reads quarter past

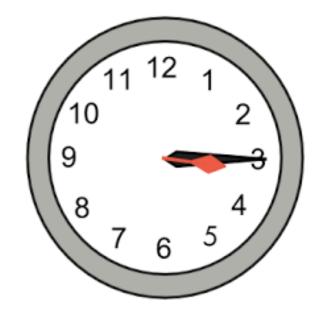


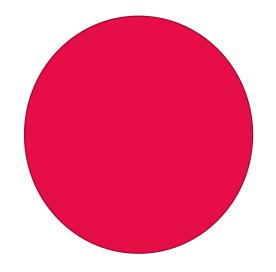


Let's practise telling Half past times.









Assignment

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Wednesday 24.2.21 Live maths



: Reading analogue time with increasing accuracy

Mathematics **Mastery**



Do now

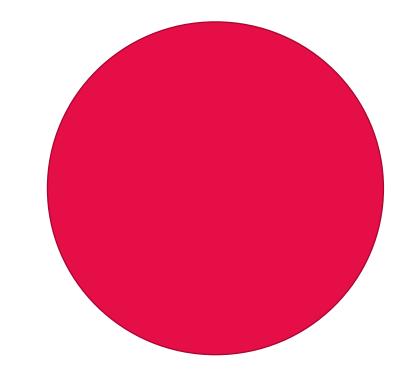
 $5 \times 1 =$

 $5 \times 10 =$

5 x 100 =

5 x 1000 =

What is the secret?



I will know how to read analogue times to the nearest minute









nearest minute

big hand (minute hand)

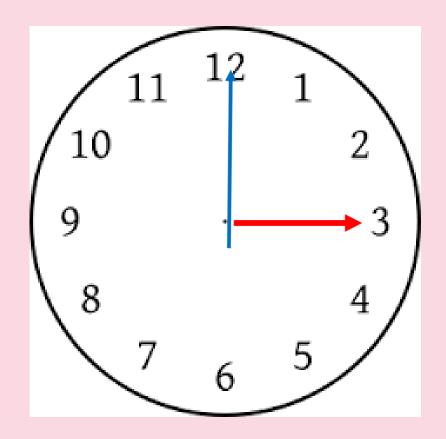


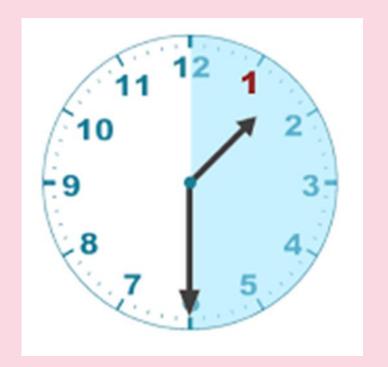
little hand (hour hand)

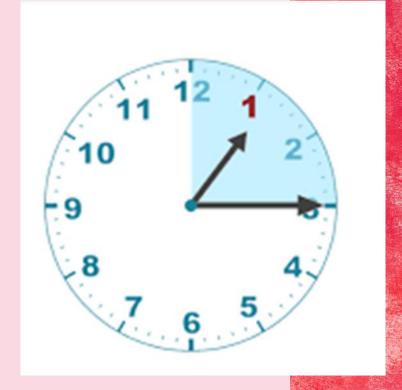


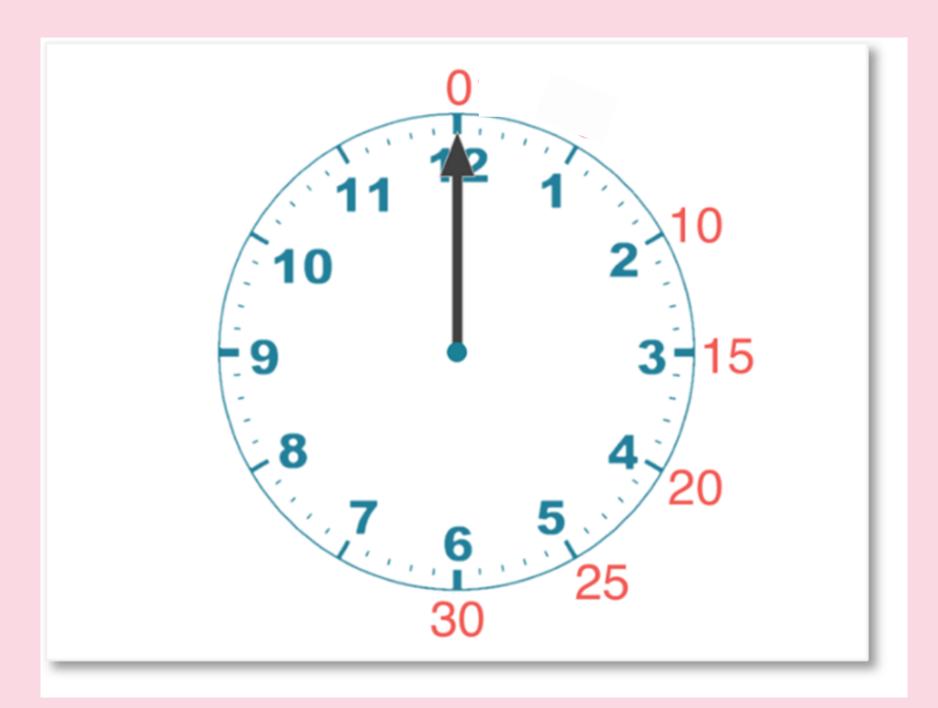
interval







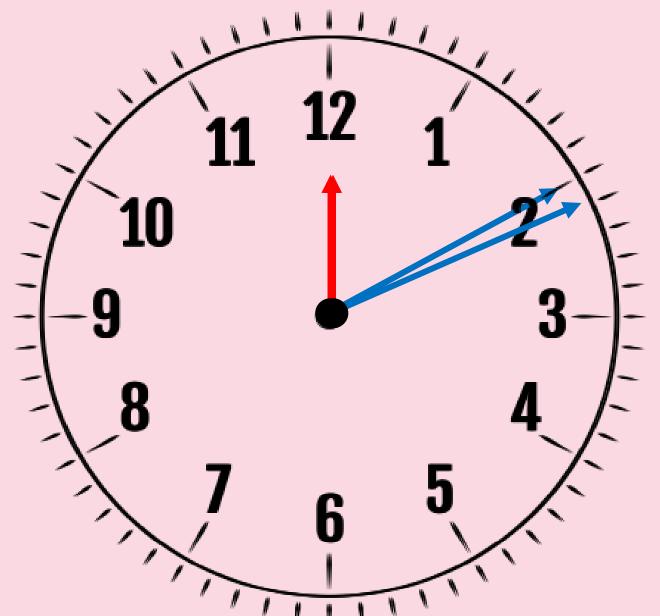




We will be counting the minutes today.

What is the time?

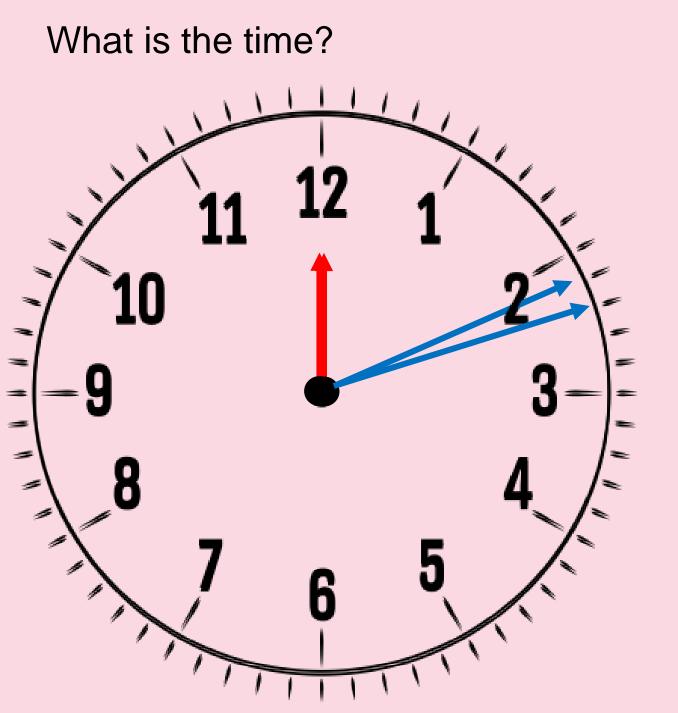
It is ten past 12



? What is one more than 10 minutes?

? What is the time now?

It is eleven minutes past 12.

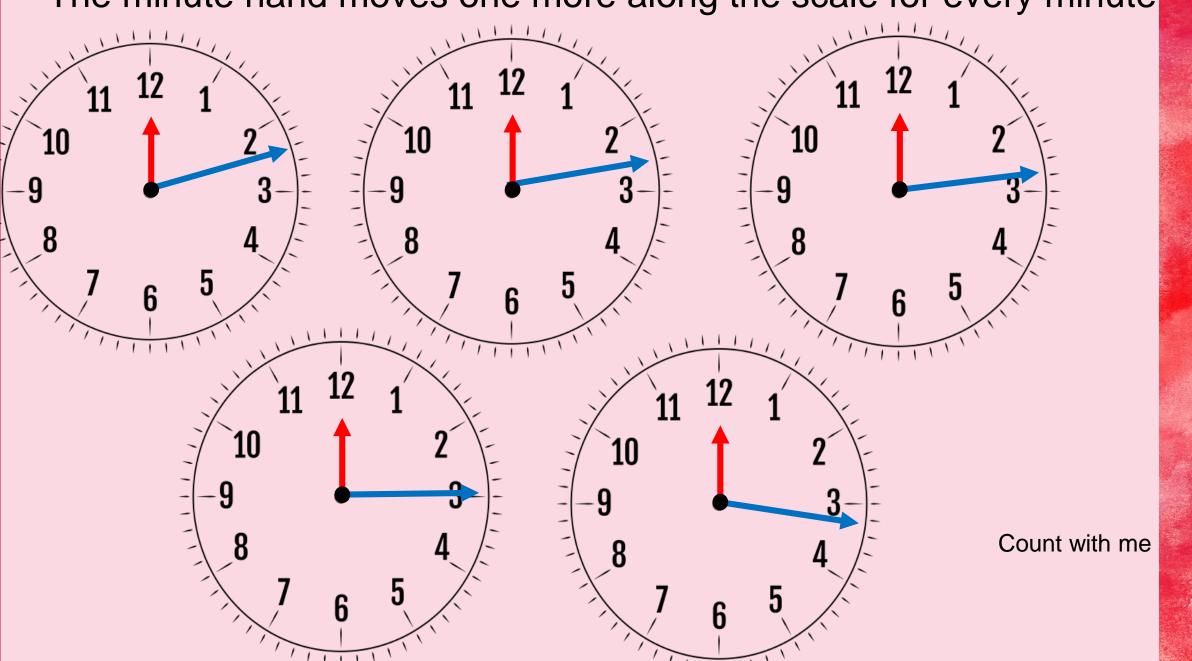


It is eleven minutes past 12

In one more minute is will be...

Twelve minutes past 12.

The minute hand moves one more along the scale for every minute



We do

The hour hand is between 7 and 8 so the time is between 7 o'clock and 8 o'clock.

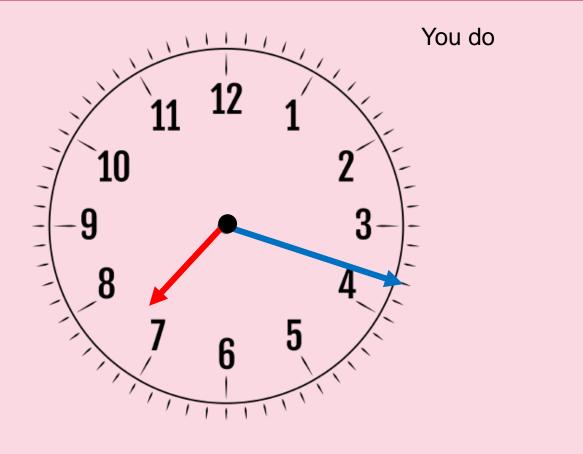
The minute hand is indicating minutes past because it is before half past.

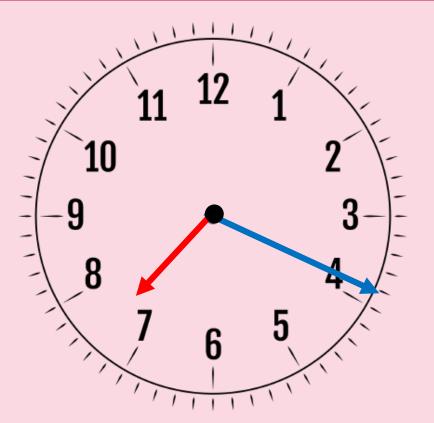
5, 10, 15, 16, 17 minutes past. It is 17 minutes past seven.



Yes, I have checked it and you are correct. The time is 17 minutes past seven.

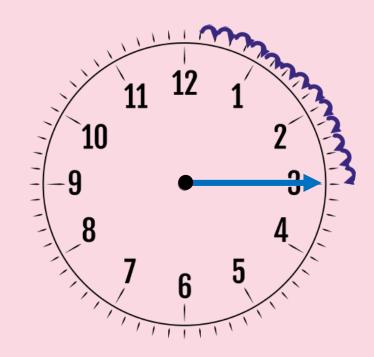




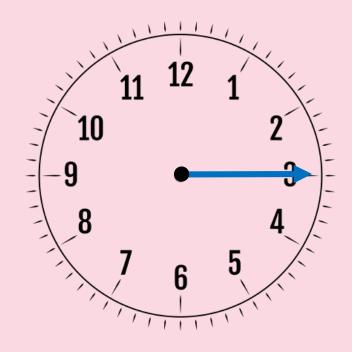


We can also count the minutes in groups of 5's

Which do you prefer?



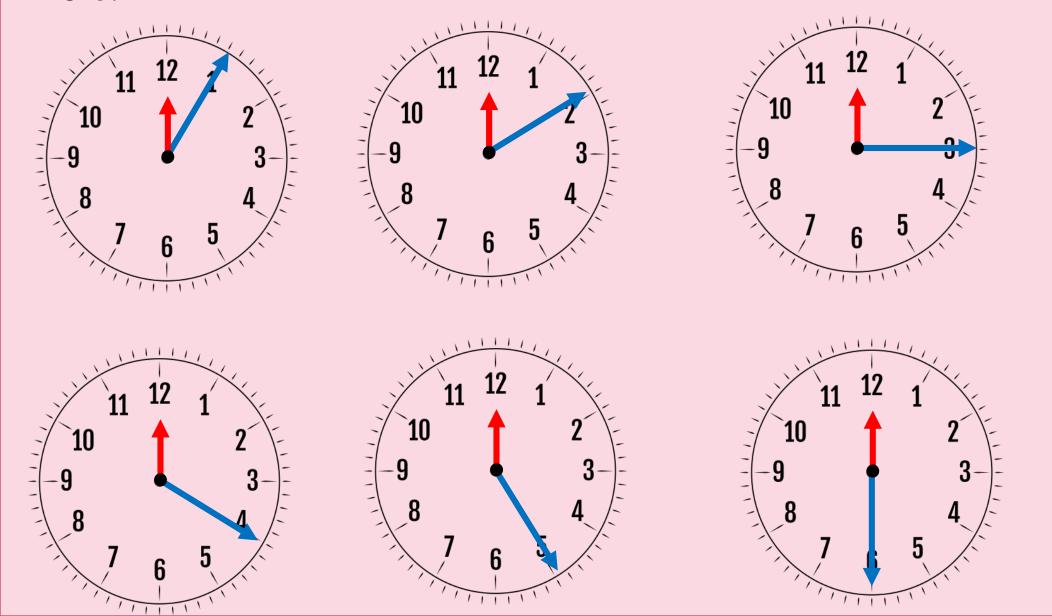
Counting on in ones?



Counting on in intervals of five minutes?

Counting in 5's is quicker!

Let's practice telling the times "past the hour" counting in 5's.



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Wednesday 24.2.21 Live maths



Reading analogue time with increasing accuracy

Mathematics **Mastery**

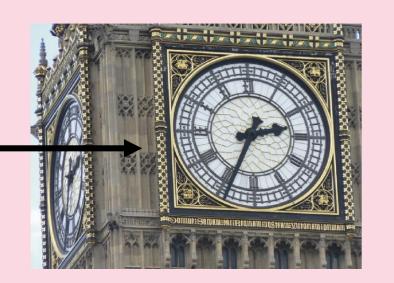


Roman numerals



Tell the time on Big Ben's clock to the nearest minute.

Why does the clock on Big Ben's tower look like this?



- Does anybody know which number system these symbols are from?
- If this is a clock face, can we work out what these strange I's, X's and V's are all about?





I will know how to read analogue times to the nearest minute





nearest minute

division

interval



clockwise anti-clockwise

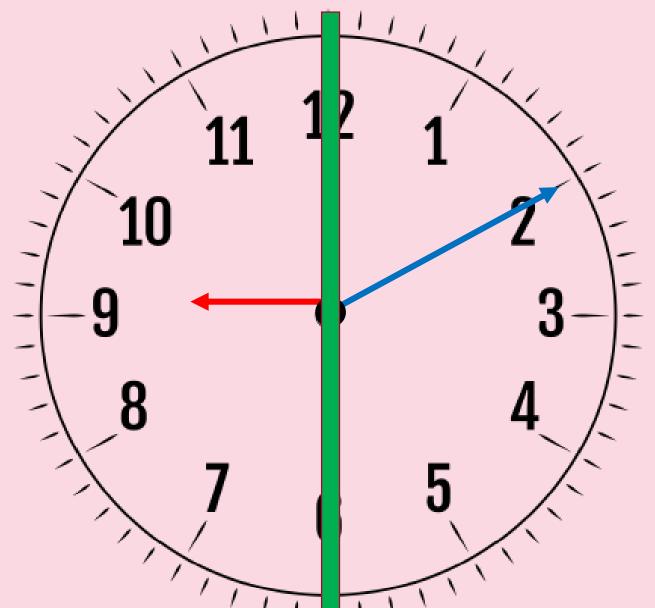






What is the time?

It is ten past 9

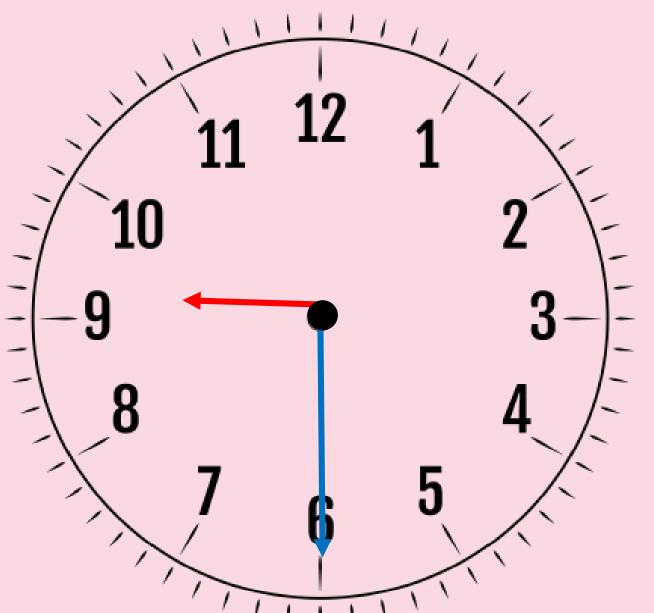


What we know about the minutes past?

How many minutes in 1 hour?

How many minutes in half an hour?

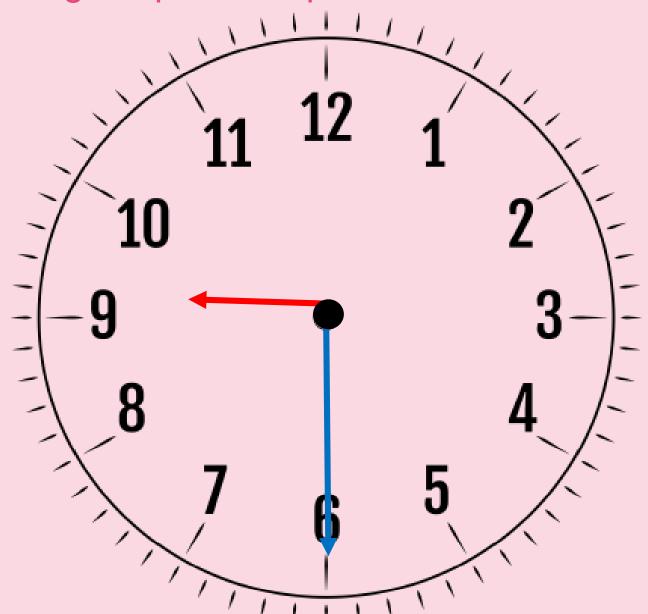
It is half past 9



How many minutes in half an hour?

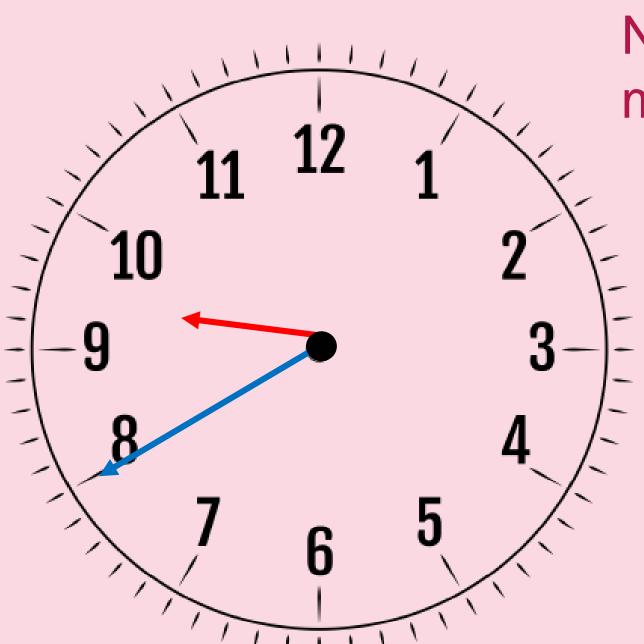
So that's 30 minutes past the hour of 9. Let's count the minutes in 5's to check this.

So what happens when the minute hand goes past half past?



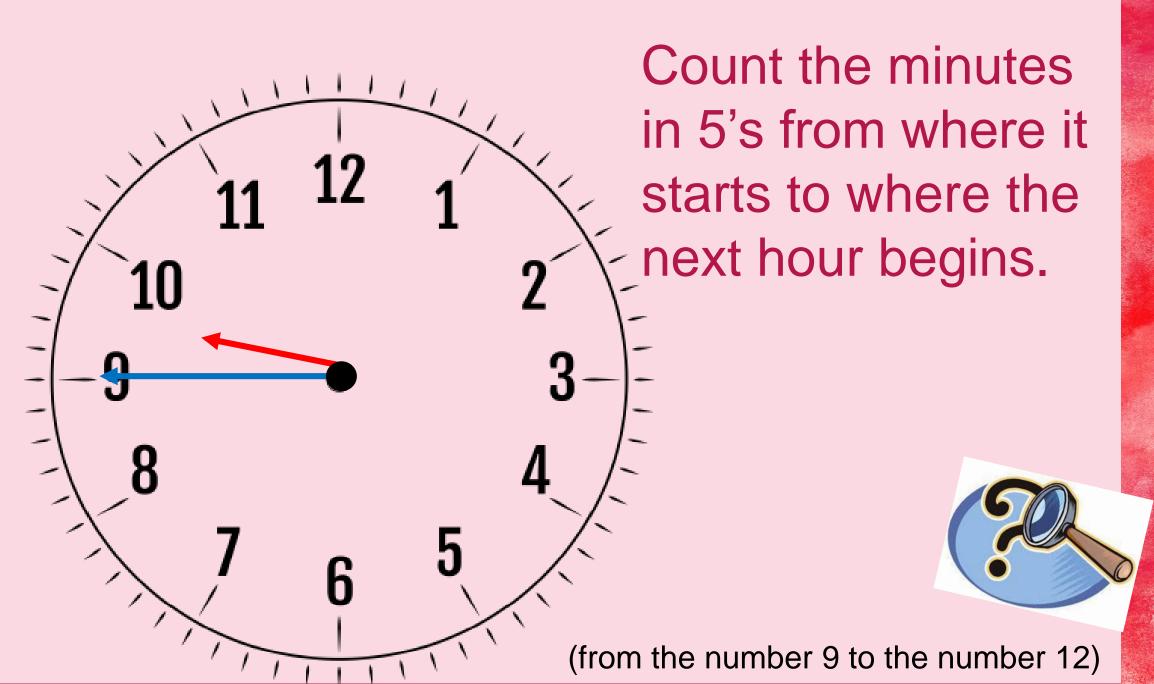
When the minute hand gets past half-way, times are expressed as 'minutes to the next hour', rather than 'past the previous hour



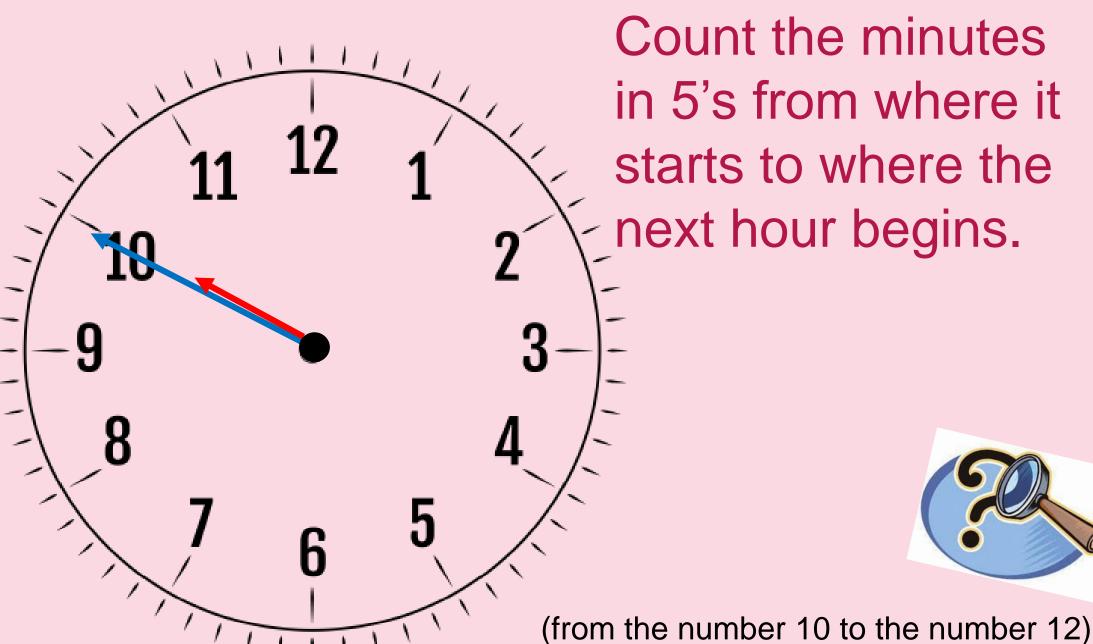


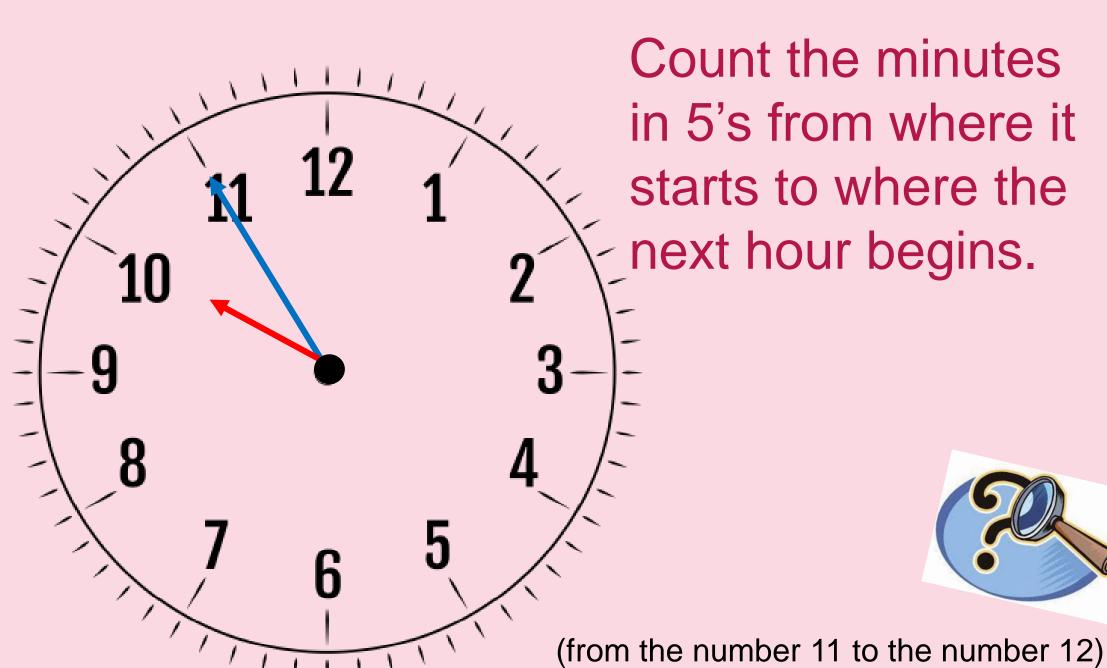
Now let's count the minutes.

Look at the hour hand, is it still directly on the 9? Has it moved a little?

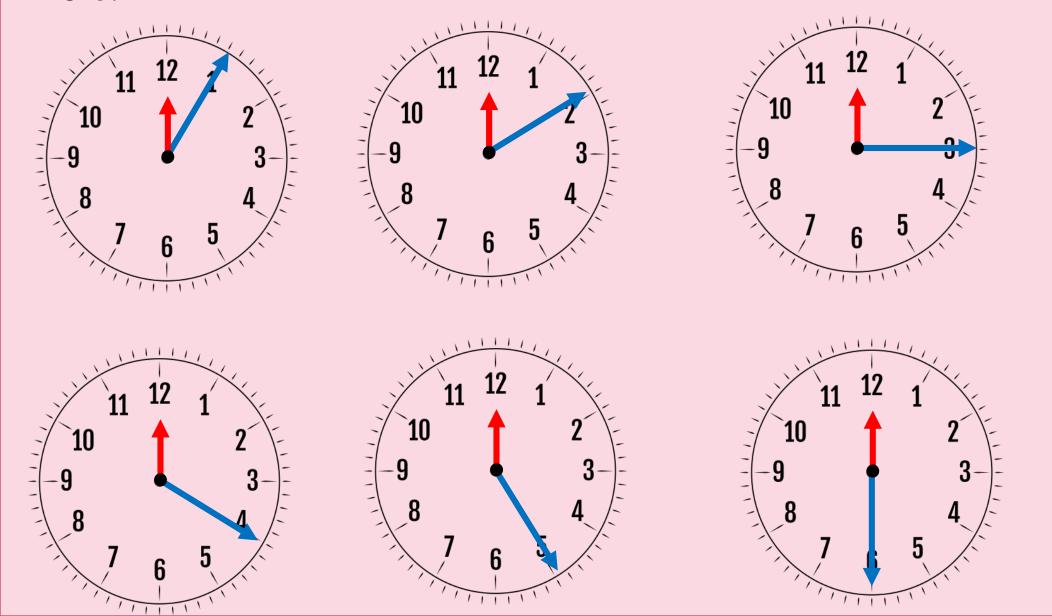


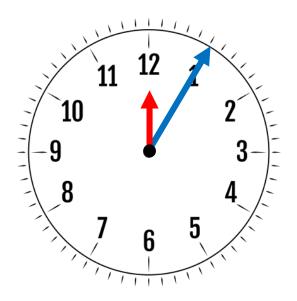
Another practise

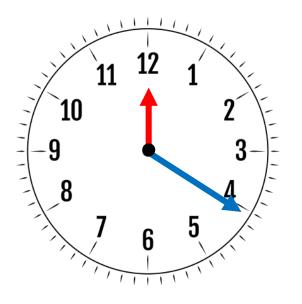


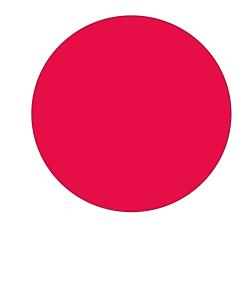


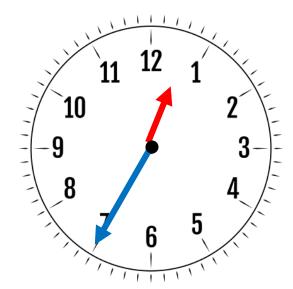
Let's practice telling the times "past the hour" counting in 5's.

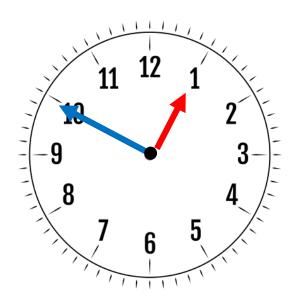












Let's practice telling the times. 2 minutes to jot down these times

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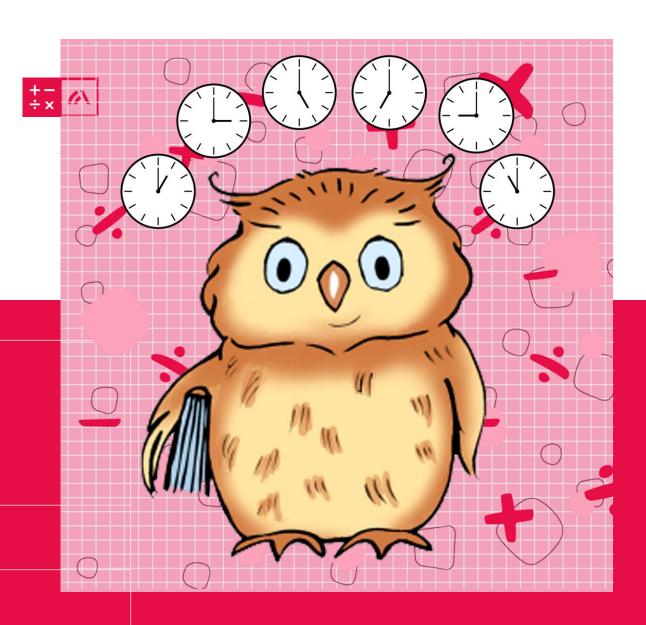
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Thursday 25.2.21 Maths live



: Telling the time using a.m. and p.m.

Mathematics **Mastery**

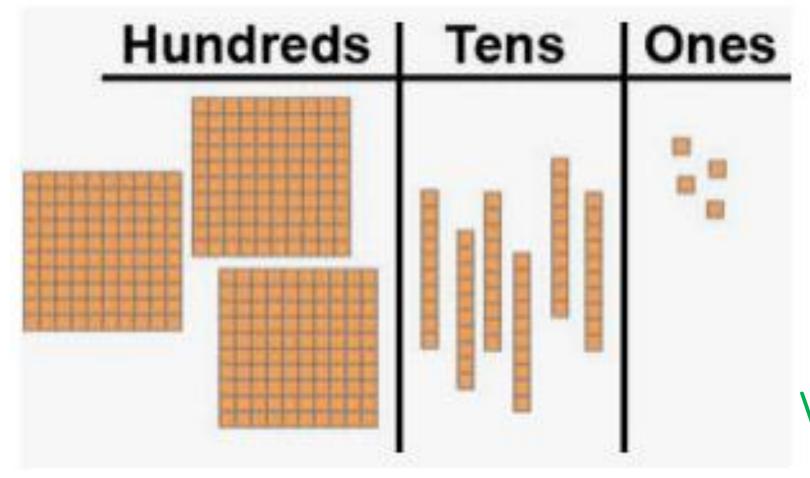




Double the number I point at



Read the number.



What would 100 greater than this number be?

What would 30 less than this number be?

Look at the array.



What could the multiplication number sentence be?

What could the division number sentence be?

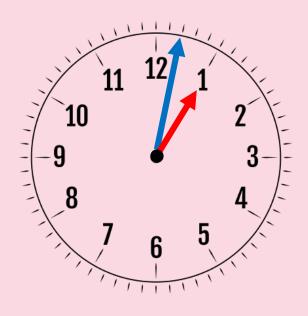
Use coins to make £1, you can use as many as you need. Can you think of a way?

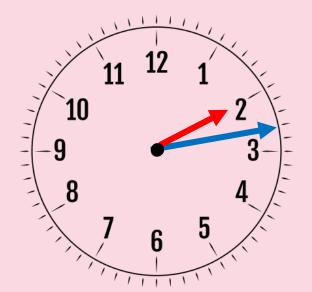


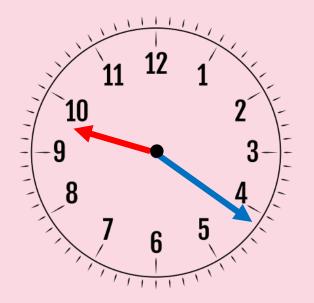


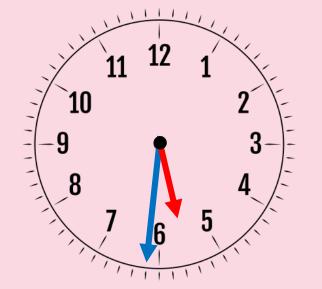


Write the time to the nearest minute

















p.m.



earlier

later



earliest latest





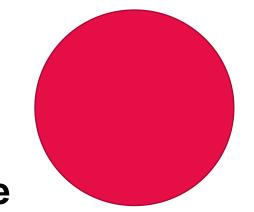


What do you do at 8 o'clock?

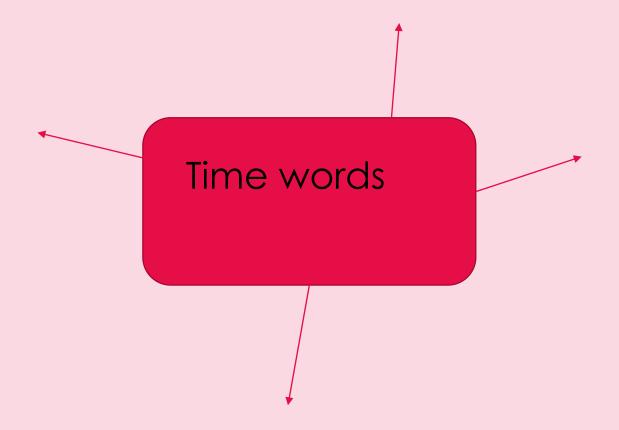
What words and phrases help us to understand the time of day we are discussing?

What sorts of words help us to understand what time of day we mean if each time on the clock face occurs twice every day?

Let's create a mind map of words to help us. You have 1 minute to come up with some time words.

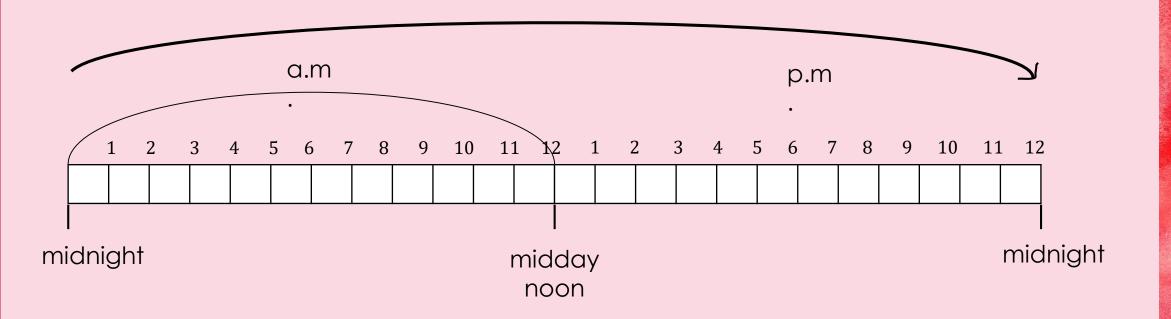


Mindmap



Understanding how to use a.m. and p.m. accurately

How many hours are in 1 day? 1 day = 24 hours











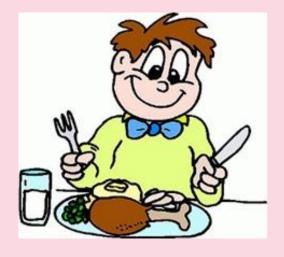




What time of day could this be?



five minutes past seven



ten minutes to six

Assignment

Go and find your assignment in the general folder.

Choose your chilli.



Click the Editing button so you can type straight onto your task sheet. If you can't write on the assignment sheet you can copy it onto paper and take a photograph of it.