Lesson 1

Converting Measure - length

OMS: Ordering Fractions

Write each set of fractions in ascending order

Hot: (A) $\frac{7}{5}$ $\frac{1}{5}$ $\frac{4}{5}$ $\frac{3}{5}$

Hotter: (B) $\frac{1}{5}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{1}{7}$

On fire: (C) $\frac{3}{4}$ $\frac{4}{5}$ $\frac{1}{2}$ $\frac{7}{10}$

F/C: True or False: These fractions are in ascending order.

1/2, 3/6, 2/4, 5/10

X 7 tables

Chant the tables

1 X 7 = 7

2 X 7 = 14

...

Learning Intention: To use measure.

Success Criteria:

On fire: I can apply my understanding of different units of time to solve problems.

Hotter: I can convert between different units of time i.e seconds to minutes, minutes to hours, hours to days etc.

Hot: I know what the different units of time are i.e. seconds, minutes, hours, months, years etc.

Brain Dump:

What do you remember from last half term about time?

Mathematical Talk

1. How many months / weeks / days are there in a year?

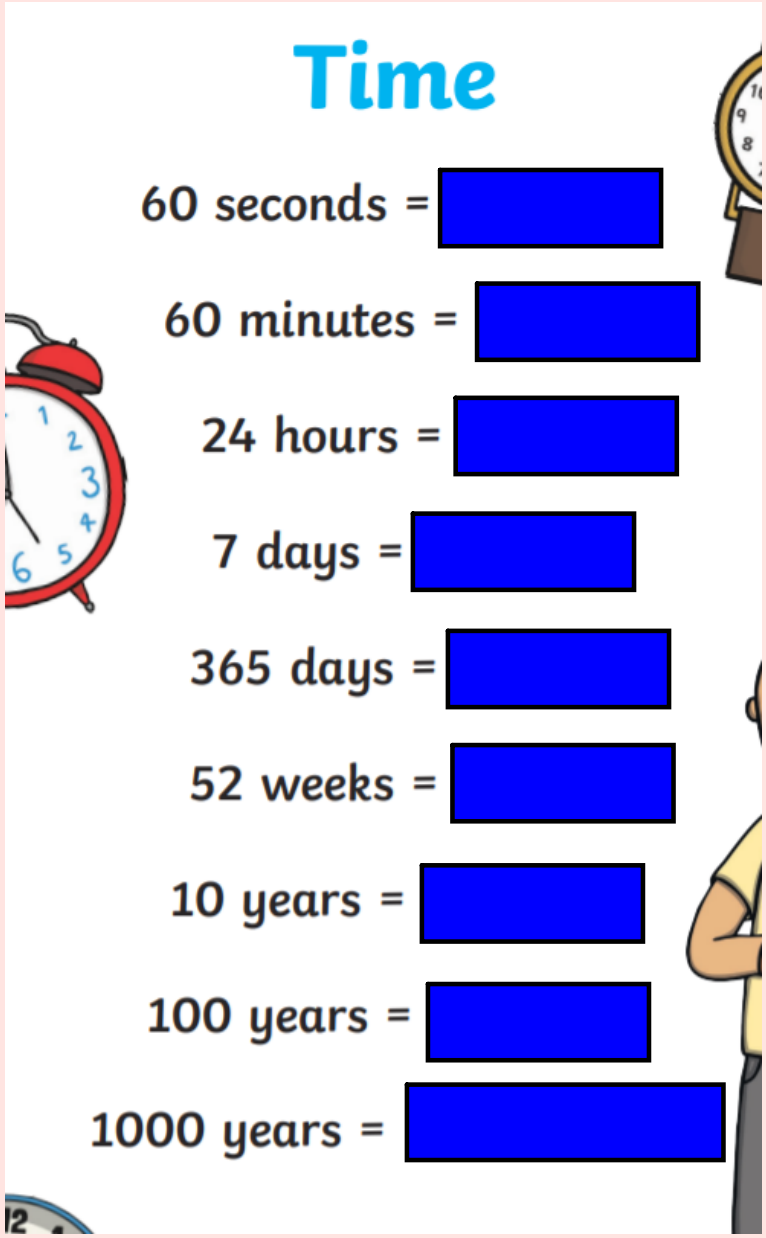
2. How many hours / minutes / seconds are there in a day?

3. Can 21 days be written in weeks? Can 25 days be written in weeks? Explain your answers.

4. Is 0.75 hours the same as 75 minutes?

Why or why not?

Recap:


Time
60 seconds =
60 minutes =
24 hours =
7 days =
365 days =
52 weeks =
10 years =
100 years =
1000 years =

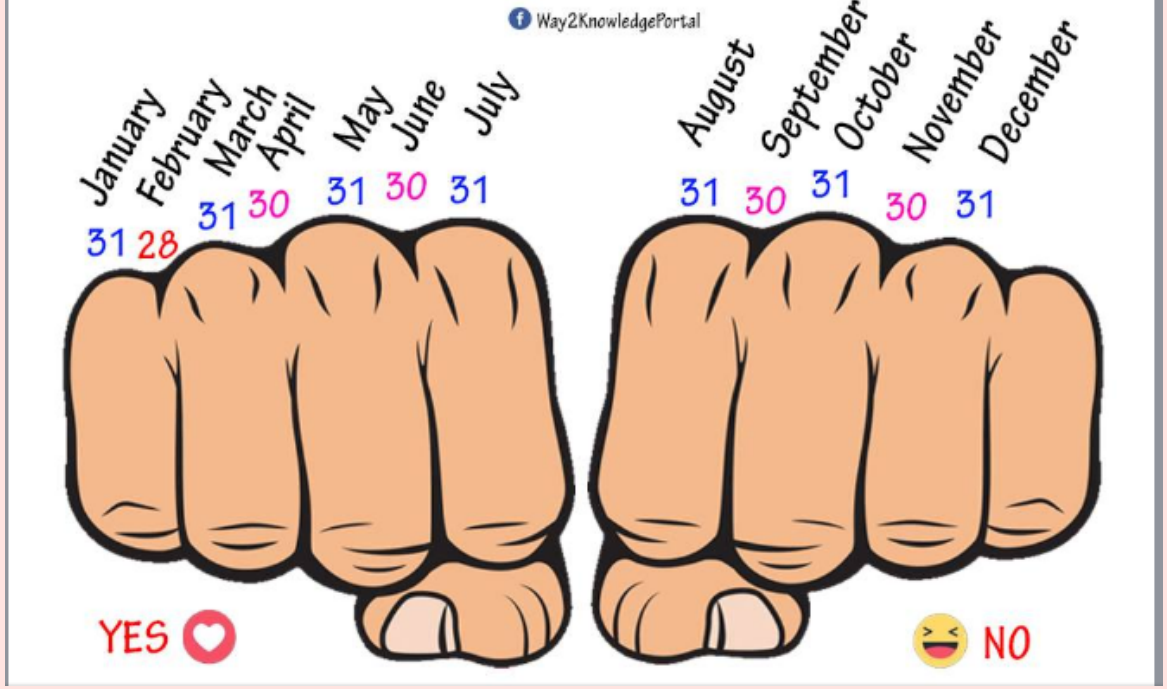
How many days are there in one week?

How many days are there in 8 weeks?

How many days are there in January, March and October?

Explain your working out to your partner.

Do You Use This Trick To Remember Days In A Month



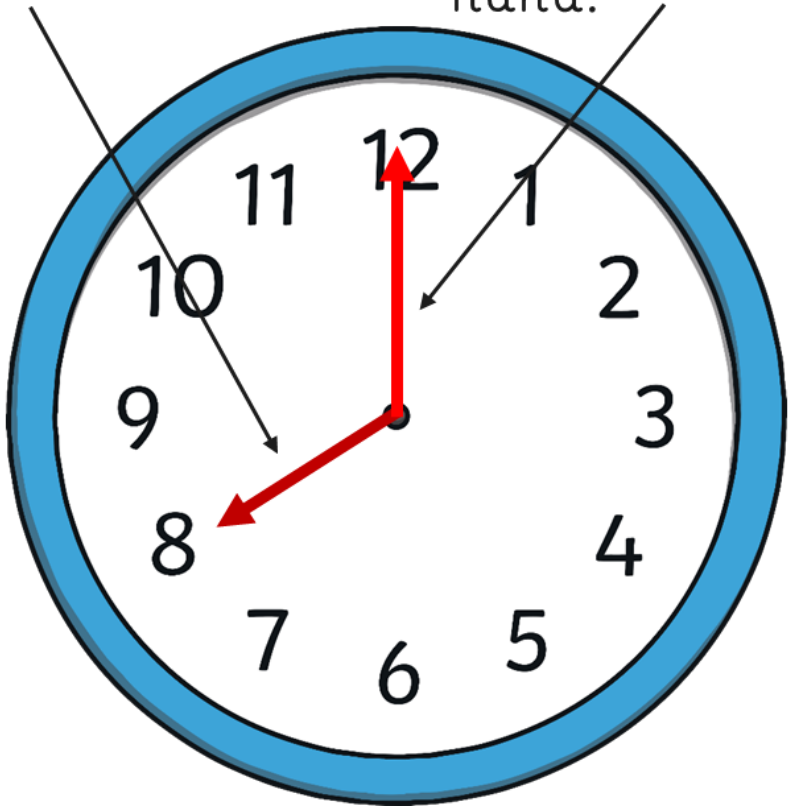
Hours and Minutes

This is the **hour** hand.

It is the shortest hand on the clock.

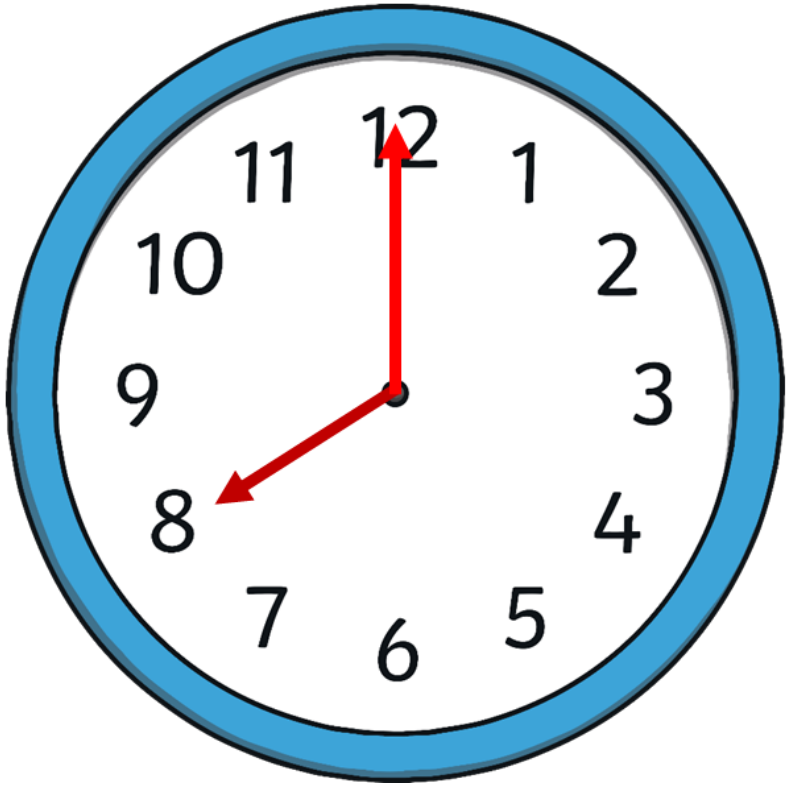
This is the **minute** hand.

It is longer than the hour hand.



Hours and Minutes

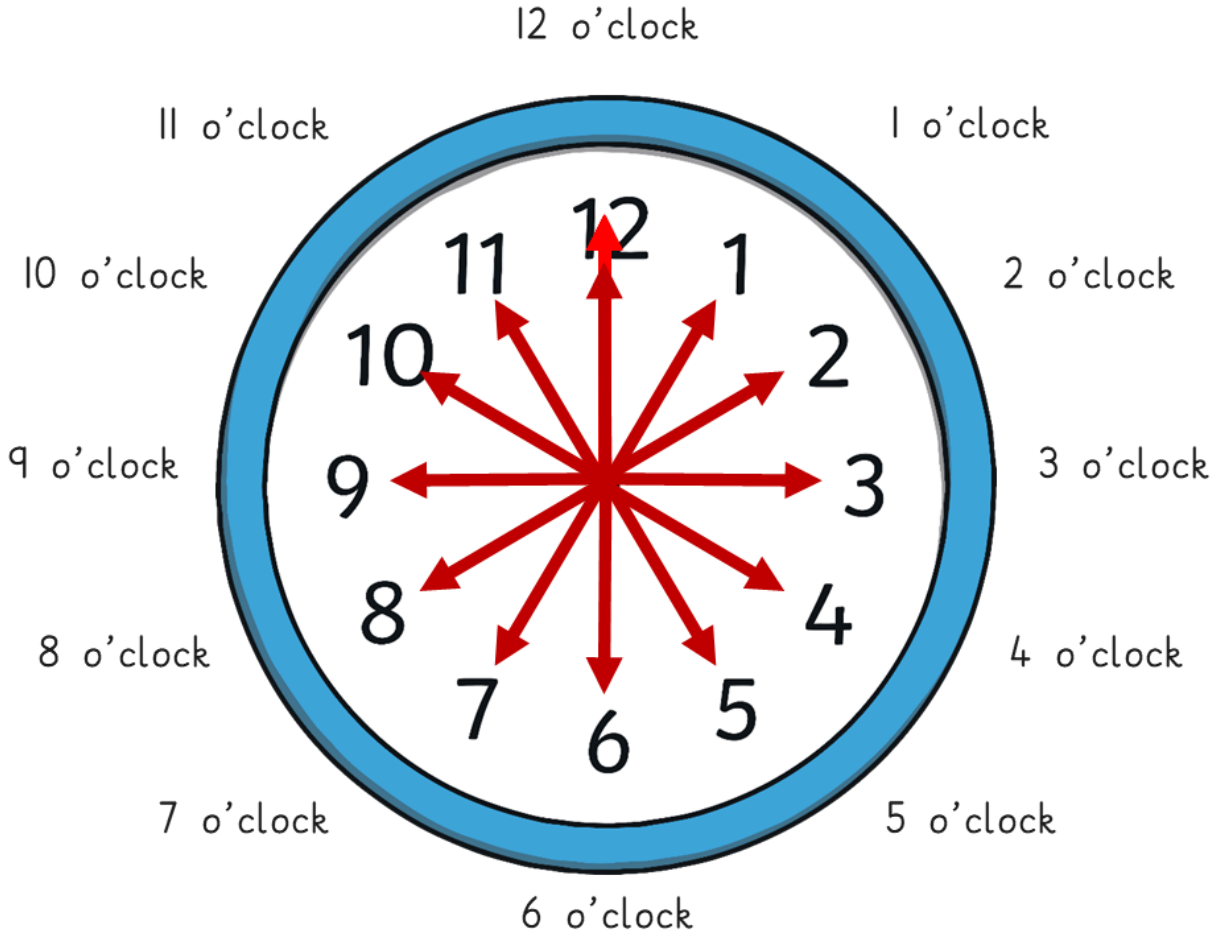
When the minute hand is pointing to 12, it is showing a full hour.
We call this time 'o'clock'.



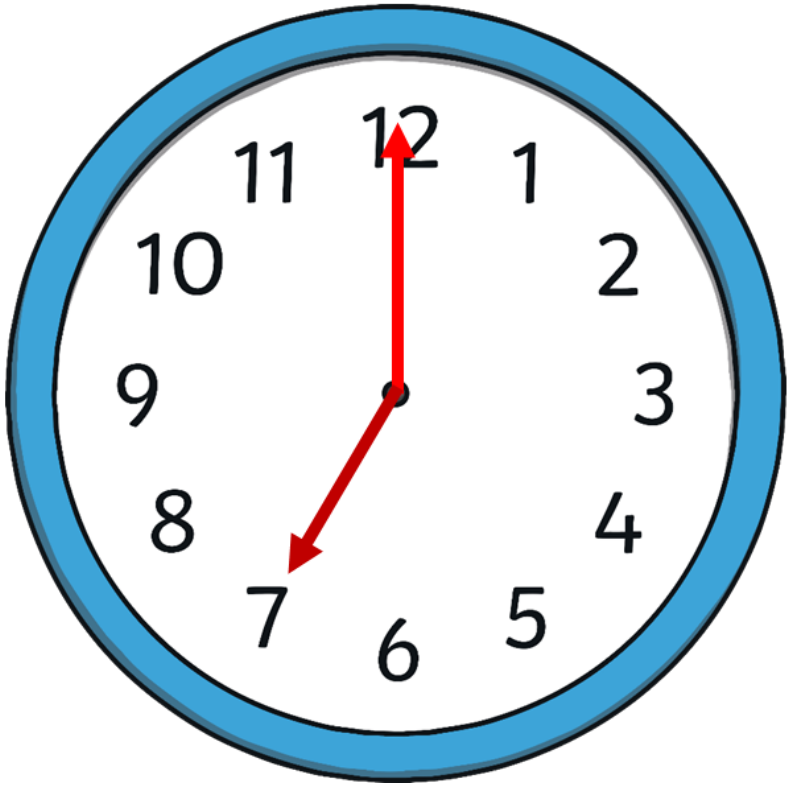
On this clock, the hour hand is pointing at the 8 and the minute hand is pointing to the 12.

This clock is showing that the time is 8 o'clock.

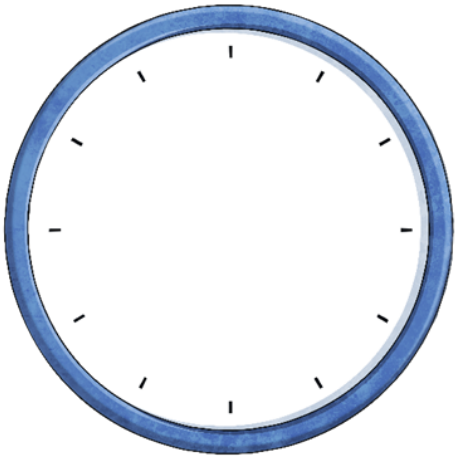
What Time Is It?



What Time Is It?



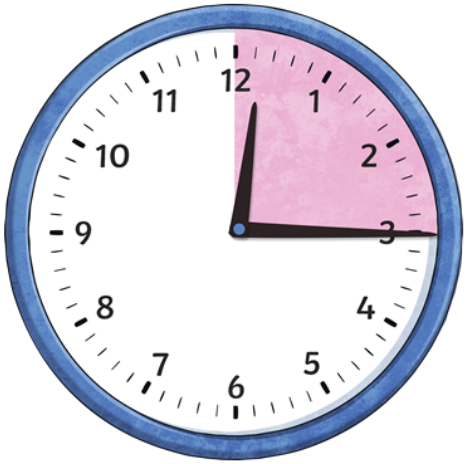
Telling the Time



How many minutes are in an hour?

60 minutes

= an hour



Why is 15 minutes called 'quarter past'?

15 minutes

= a quarter of an hour

Why is 30 minutes called 'half past'?

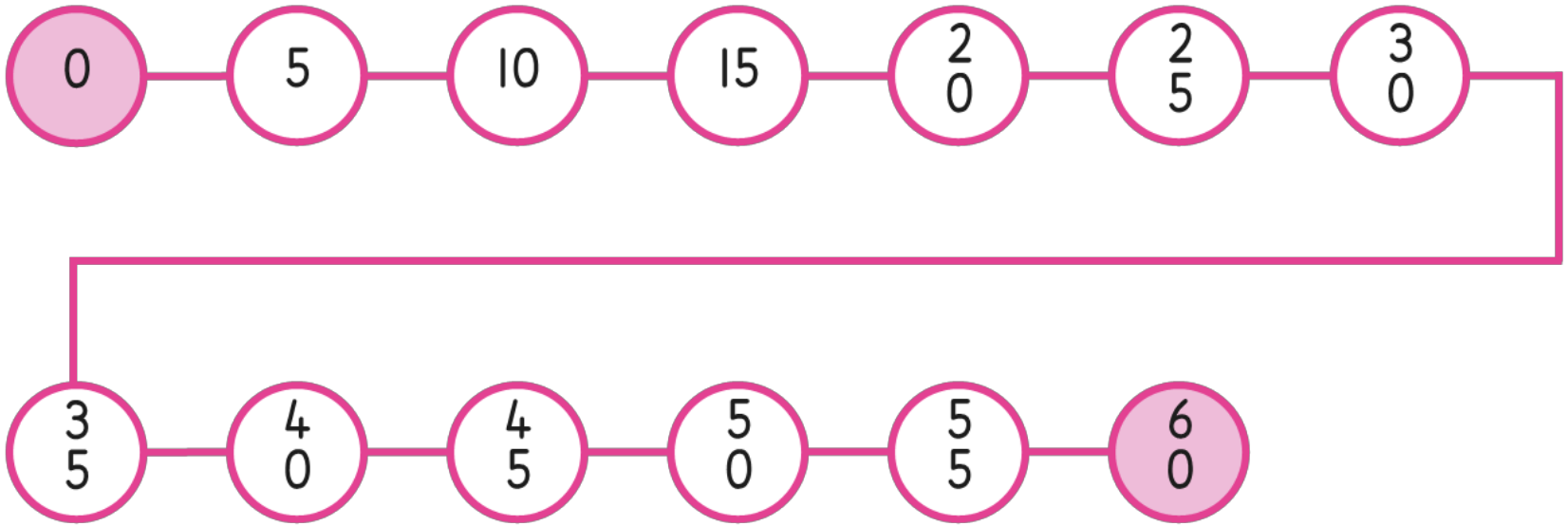
30 minutes

= half an hour

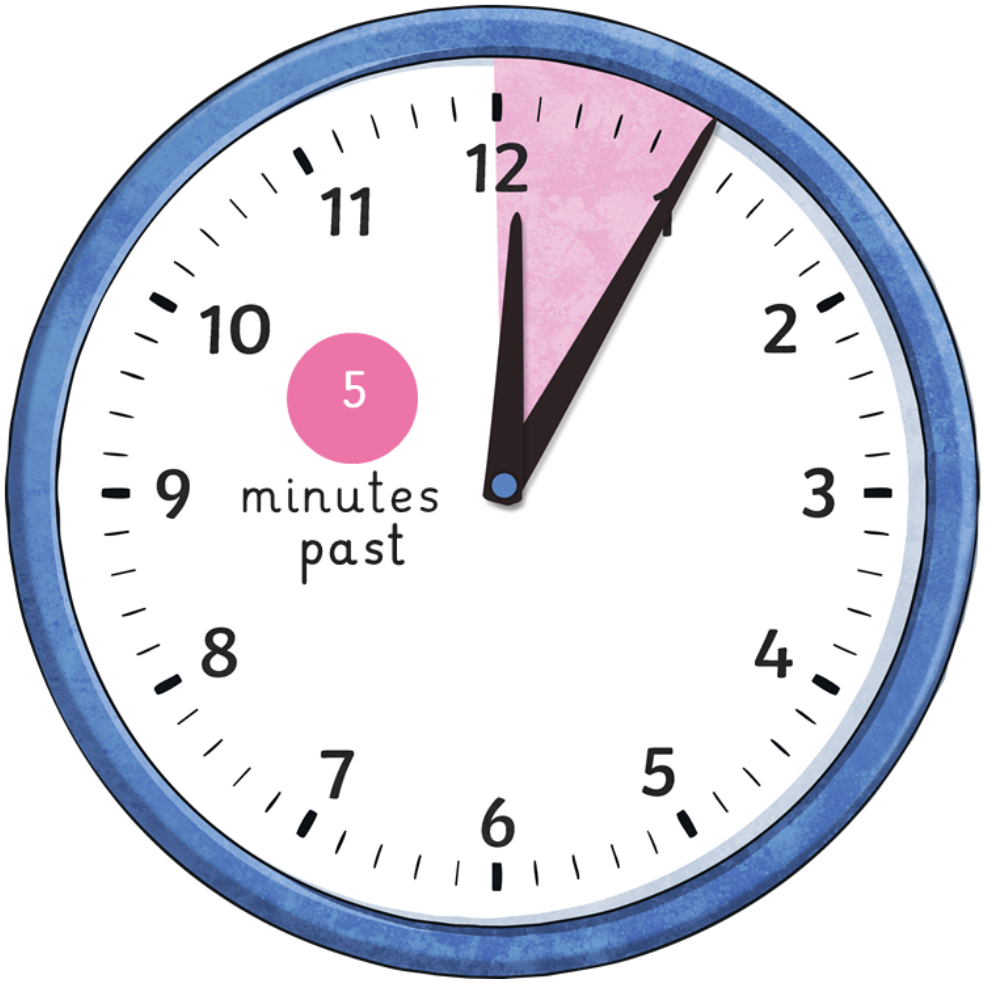
Telling the Time

When we are telling the time, it is really important to be able to count in 5s.

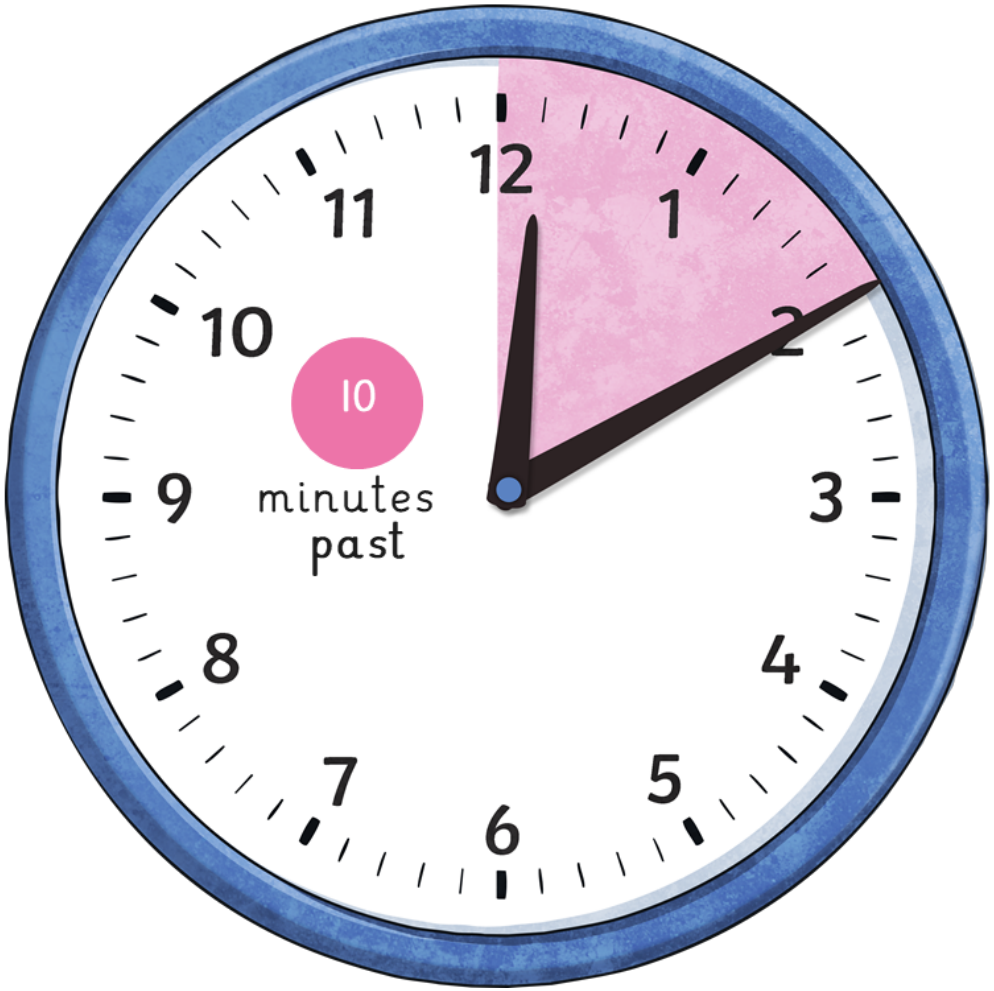
Can you count in 5s from 0 to 60?



When the big hand points to 1, it means...



When the big hand points to 2, it means...



o'clock
five to
five past
ten to
ten past
quarter to
quarter past
twenty to
twenty past
twenty-five to
twenty-five past
half past
to
past
12
1
2
3
4
5
6
7
8
9
10
11
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Let's use our analogue clocks...

Show me the following times...

Half past 8

Twenty five past 3

Quarter past 9

Ten to 3

At what time do you...

wake up?

go to school?

have your lunch?

go home?

eat dinner?

do your homework?

go to bed?

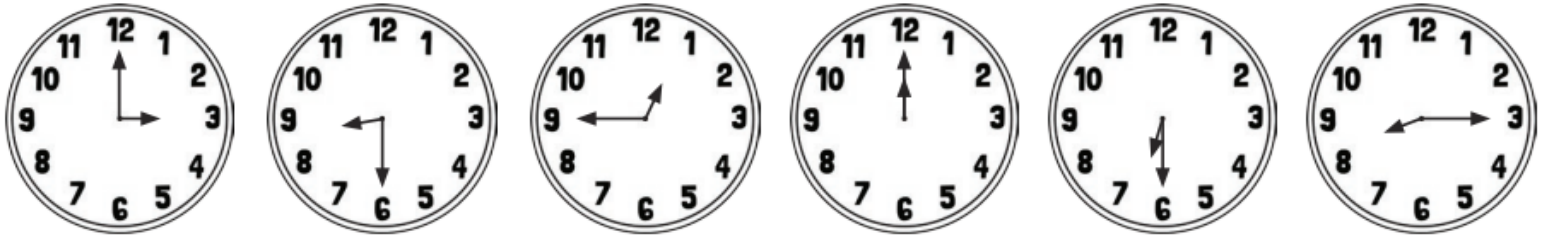
Hot:

Write the time shown on each clock.

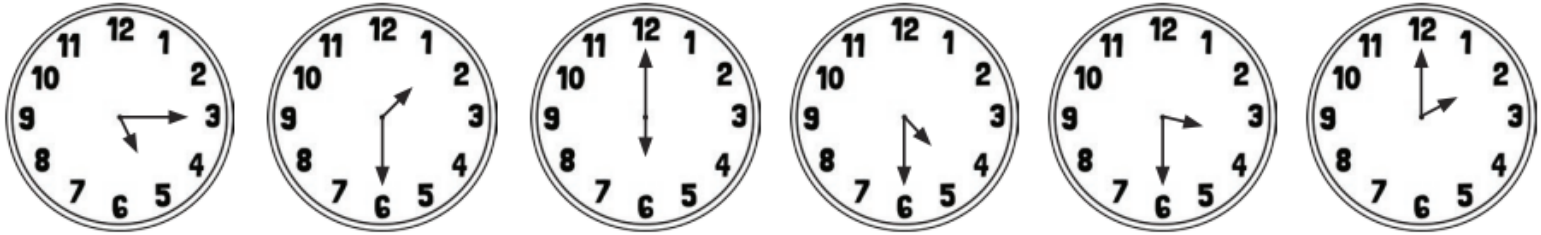
Hotter Activity:

Tell the Time: Writing the Time

Write the time shown on each clock.



_____ _____ _____ _____ _____ _____



_____ _____ _____ _____ _____ _____

On fire:

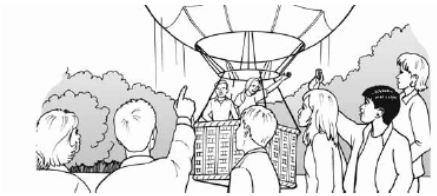
Telling the Time Half-Past Onwards

Underneath each clock, write the time shown.

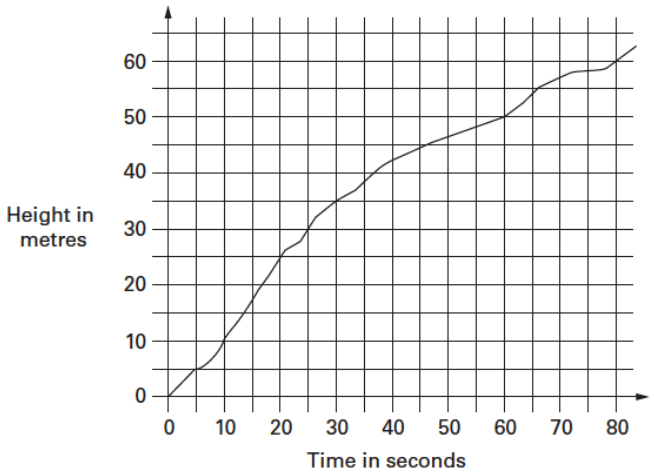
E.g. 10 minutes to 2.

Further Challenge:

16



This graph shows the height of a balloon at different times.



From the graph, find the height of the balloon at 50 seconds.

m

16a

1 mark

Use the graph to find how long it took the balloon to rise from 30 metres to 60 metres.

seconds

16b

1 mark

Lesson 2

Time - lesson 2

X 6 tables

Times table relay

Learning Intention: To use measure.

Success Criteria:

On fire: I can apply my understanding of different units of time to solve problems.

Hotter: I can convert between different units of time i.e seconds to minutes, minutes to hours, hours to days etc.

Hot: I know what the different units of time are i.e. seconds, minutes, hours, months, years etc.

Talk, Pair, Share...

Using a.m. and p.m.

What time of the day does ___ happen?

Is ____ earlier or later than _____?

How do you know whether a time is in the morning or afternoon?

What times could be a.m.?

What times could be p.m.?

What is the difference between analogue and digital?

What would the time look like on an analogue clock?

How can we change analogue to digital?

I do:

Sort out the times from earliest to latest.

5.26p.m.

2.33a.m. ⟶

9.30a.m.

6.57p.m.

We do:

I slept from 7a.m. to 9p.m yesterday. Do you think this is correct. Explain why?

You do:

Ron got his break at 11.58a.m. His break lasted 10 minutes. What time did his break finish? Write a.m. or p.m. correctly.

Hot - Am or Pm?

Eating lunch	Getting ready for bed
Doing guided reading	Sleeping
Walking to school	Break time
Walking home from school	Buying tuck
Having ICT	Mrs McCormick's assembly
Brushing your teeth	Having a bath
Watching TV	Having PE
Eating breakfast	Eating tea
In English lesson	Getting dressed ready for school

Hotter

Using a visual timetable, sort the events into morning and afternoon.

Create sentences to describe when events take place.

For example: Maths is in the morning. Guided Reading is in the afternoon.

Sort the times from latest to earliest.

5:30 p.m.	9:45 a.m.	9:45 p.m.	10:23 a.m.
7:31 a.m.	10:13 p.m.	8:30 a.m.	6:32 a.m.
12:24 a.m.	8:55 p.m.	2:11 a.m.	7:40 a.m.

Show the times on both analogue and digital clocks.

- Guided reading at 10:00 a.m.
- Home time at 3:30 p.m.
- Lunchtime at 12:00 p.m.

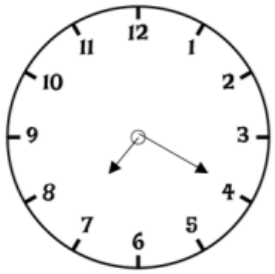
:

On fire:

The board shows the times of trains arriving and leaving the train station.

	Arrives	Leaves
London	5:50 a.m.	6:00 a.m.
Edinburgh	8:00 a.m.	8:20 a.m.
Manchester	2:33 p.m.	2:45 p.m.
Leeds	7:31 p.m.	7:35 p.m.

Ron's watch shows the time he arrives at the station.



Which train could he be catching?
Explain how you know.

Problem-Solving:

Dora

I slept from 8 p.m. to 8 a.m.

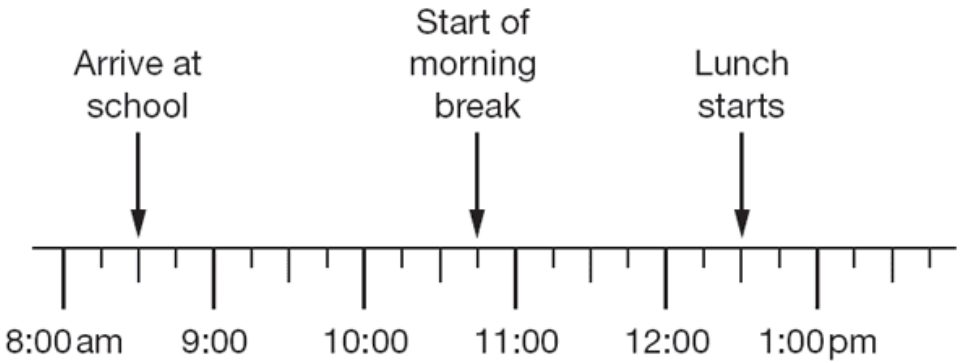
Teddy

I slept from 8 a.m. to 8 p.m.

Who is more likely to be correct?
Explain how you know.

Further Challenge:

8 Jamie makes a time line of part of his day.



What time does Jamie's morning break start?

am

8a

1 mark

Lunch lasts for three-quarters of an hour.

What time does lunch **finish**?

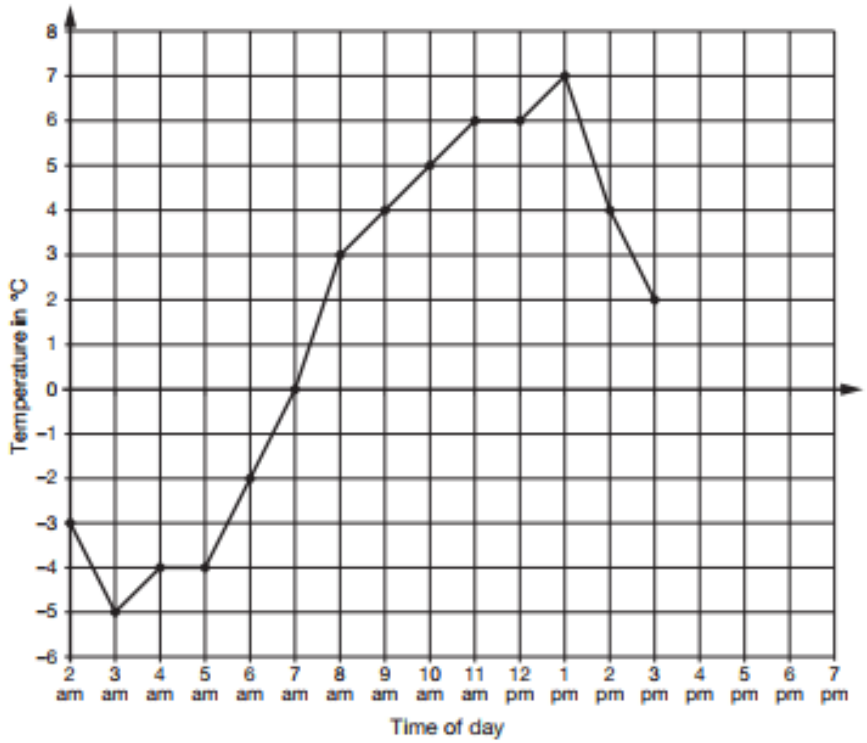
pm

8b

1 mark

Further Challenge:

4 This graph shows the temperature in °C from 2 am to 3 pm on a cold day.



How many degrees **warmer** was it at 3 pm than at 3 am?

°C

1 mark

Lesson 3

Time Problems

OMS: Ordering Fractions

Hot - Ascending order

1/10, 5/10, 4/10

2/3, 1/3, 3/3

Hotter

Write these fractions in order, smallest first.

$$\frac{3}{4} \qquad \frac{3}{6} \qquad \frac{3}{8}$$

On fire

Super Trick

Write in Ascending Order

$$1\frac{4}{14}, 1\frac{5}{21}, 1\frac{1}{42}$$

Further Challenge:

What is the difference between ascending and descending order?

X 7 tables

Times table Wizards

Learning Intention: To use measure.

Success Criteria:

On fire: I can apply my understanding of different units of time to solve problems.

Hotter: I can convert between different units of time i.e seconds to minutes, minutes to hours, hours to days etc.

Hot: I know what the different units of time are i.e. seconds, minutes, hours, months, years etc.

Recap:

What do you remember from the last two lessons?

Today we will be solving time problems using a number line.

I do: Ellie takes the train to Edinburgh. She sets off at 09:25 in the morning and arrives at 10.47. How long was her journey?

We do: Ben travels on a coach to Manchester. His coach sets off at 08:19. He arrives at Manchester at 09:55. How long was his journey?

<u>You do:</u> On holiday, Anna cycles to Killarney. She sets off at 14:27 and arrives at 15:58. How long was her journey?

Hot

1. How long is it from 10 o'clock to 1 o'clock?

2. How long is it from 9 o'clock to 2 o'clock?

3. Alex got on a bus at 4 o'clock.
   The journey took half an hour.
   What time did he get off the bus?

4. Julie went to play football at 3:30.
   She played for half an hour.
   What time did she finish?

5. Gary started the test at 9:30.
   He finished at 9:45.
   How long did it take him?

6. Luke started running at 3:45.
   He stopped at 4:15.
   How long did he run for?

7. Linda put the roast dinner in the oven at 11:30.
   It was ready at 1:00.
   How long did it take to cook?

Hotter:

1. The train left the terminal at 11:28 a.m. and arrived at its destination at 2:47 p.m. How long did the train travel?

2. Jack's meeting started at 2:45 p.m. and ended at 5:53 p.m. How long did the meeting last?

3. Sam arrives at school for 7.22a.m. School opens at 8.05a.m. How long does Sam have to wait?

4. A bus is scheduled to leave the terminal at 9:45 p.m. It leaves at 10.38p.m. How late is the bus?

On fire:

1. The train was scheduled to arrive at 5:13p.m. However, it was delayed for 55 minutes. What time did the train arrive?

2. The bus departs the bus terminal every 2 hours and 15 minutes. If the first bus is scheduled to depart at 10:35 a.m. when should the second bus depart?

3. Mariah starts her 7 hour and 30 minute shift at 6:15 a.m. What time does Mariah get off from work?

4. Hugh and his friends watched the latest action movie at the movie theater. The movie was 2 hours and 45 minutes long. They left the movie theater at 4:32 p.m. At what time did the movie start?

Further Challenge:

6 William wants to travel to Paris by train.

He needs to arrive in Paris by **5:30 pm**.

Circle the **latest time** that William can leave London.

Leaves London	Arrives Paris
12:01	15:22
12:25	15:56
13:31	16:53
14:01	17:26
14:31	17:53
15:31	18:53
16:01	19:20

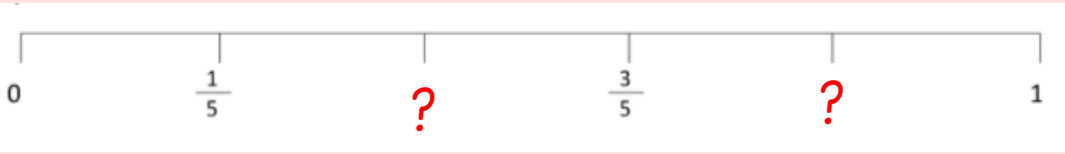
1 mark

Lesson 4

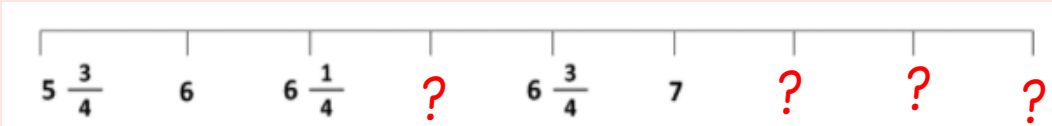
Time Tables

OMS: Ordering Fractions on a number line

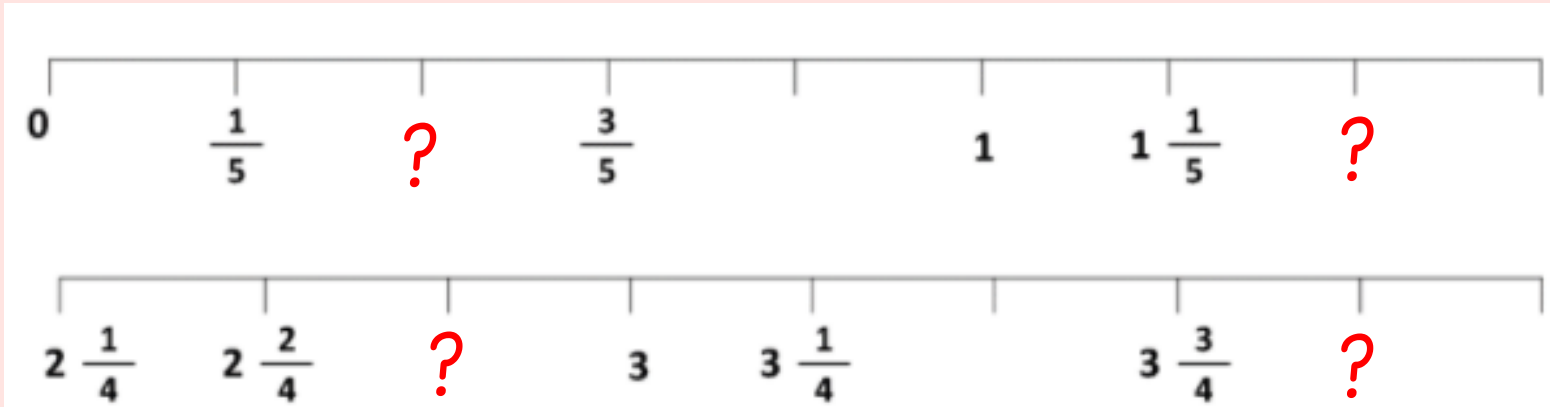
Hot



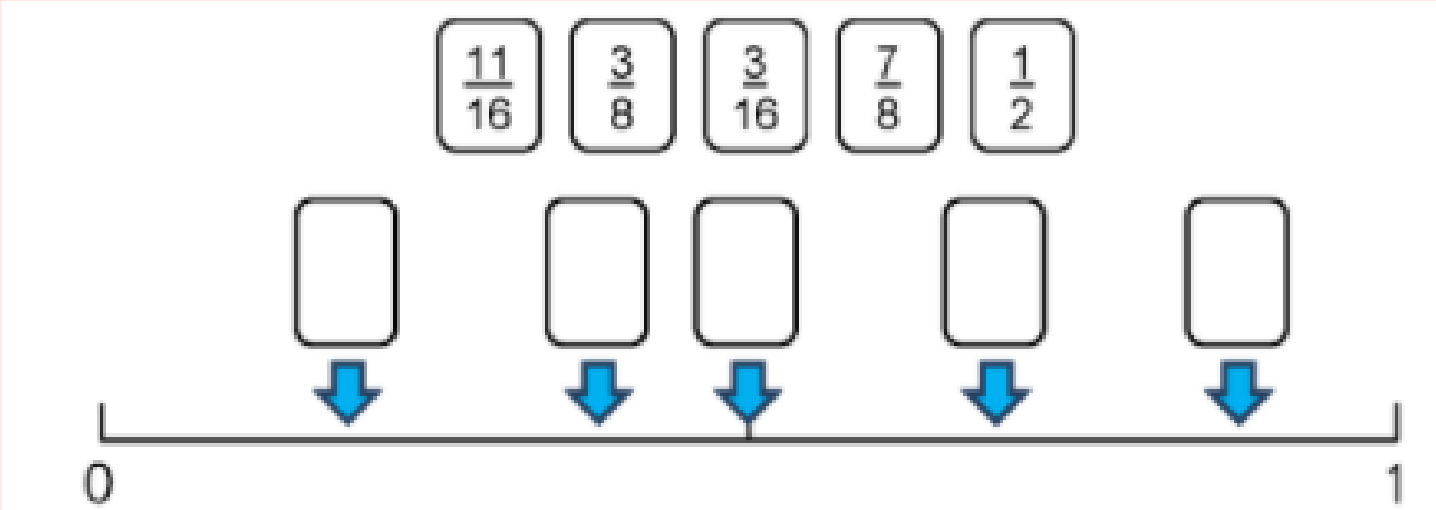
Hotter



On fire



Further Challenge:



X 7 tables

Hit the button

https://www.topmarks.co.uk/maths-games/hit-the-button

Learning Intention: To use measure.

Success Criteria:

On fire: I can apply my understanding of different units of time to solve problems.

Hotter: I can convert between different units of time i.e seconds to minutes, minutes to hours, hours to days etc.

Hot: I know what the different units of time are i.e. seconds, minutes, hours, months, years etc.

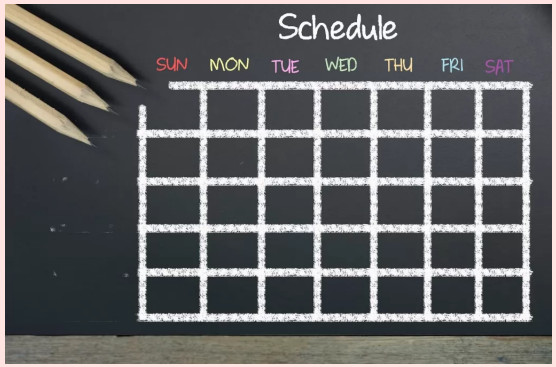
Ping pong...

Tell your partner:

What do you remember from this week?

Today we will solve time problems using time tables.

What do we use time tables for?



Bus Stops	Day Times						
St Paul's Cathedral	08:34	10:00	11:45	13:45	14:30	16:30	18:36
Tower Of London	08:46	10:12	11:57	13:57	14:42	16:42	18:48
Tower Bridge	08:48	10:14	11:59	13:59	14:44	16:44	18:50
The Shard	08:56	10:22	12:07	14:07	14:52	16:52	18:58
Tate Modern	09:03	10:29	12:14	14:14	14:59	16:59	19:05
London Eye	09:12	10:38	12:23	14:23	15:08	17:08	19:14
Westminster	09:17	10:43	12:28	14:28	15:13	17:13	19:19
Downing Street	09:23	10:49	12:34	14:34	15:19	17:19	19:25
Buckingham Palace	09:30	10:56	12:41	14:41	15:26	17:26	19:32
Hyde Park	09:38	11:04	12:49	14:49	15:34	17:34	19:40
Oxford Circus	09:45	11:11	12:56	14:56	15:41	17:41	19:47
Piccadilly Circus	09:51	11:17	13:02	15:02	15:47	17:47	19:53
Covent Garden	10:03	11:29	13:14	15:14	15:59	17:59	20:05

I do:

Use the timetable to answer the questions below:

Station	Time				
Burwood	5:20	5:27	5:50	7:17	8:26
Croydon	-	-	6:00	7:27	8:36
Ashfield	5:35	5:42	6:05	7:32	8:41
Summer Hill	-	6:12	7:39	8:48	8:53
Lewisham	5:48	5:55	6:18	7:45	8:54

a What time does the 10 to 6 train from Burwood arrive at Ashfield? _____

b I have just missed the 5:35 train from Ashfield. How long do I have to wait until the next train? _____

c I live in Croydon and I want to get to Lewisham by 6:30. Which train should I get? _____

We do:

Use the timetable to answer the questions below:

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Hot -

Bus 76 Timetable

Uxbridge	09:30	10:30	11:50	13:10
Hayes	09:47	10: 47	12:07	13:27
Southall	09:55	10:55	12:15	13:35
West Ealing	10:05	11:05	12:25	13:45
Ealing Broadway	10:11	11:11	12:31	13:51

1. What time does the 9.30 Bus from Uxbridge arrive at Hayes?
2. What time does the last bus arrive at West Ealing?
3. What time does the 13:10 bus arrive at Southall?
4. How many stops are there on Bus 76?
5. What time does the 11:50 bus from Uxbridge arrive at Ealing Broadway?

Hotter

Here is part of the bus timetable from the Bus Station to the Police Station:

Bus Station	10:05	10:17	10:29	10:45	11:20	11:38
High Street	10:20	10:32	10:44	11:00	11:35	11:53
East Way	10:27	10:39	10:51	11:07	11:42	12:00
Queen Street	10:37	10:49	11:01	11:17	11:52	12:10
St Andrew's Church	10:50	11:02	11:14	11:30	12:05	12:23
Police Station	10:59	11.11	11:23	11:39	12:14	12:32

Now answer the following questions about this timetable:

At what **time** does the **10:45** bus arrive at **Queen Street**? _____

The bus arrives at **East Way** at **11:42**. At what time did it leave the **Bus Station**? _____

How **long** does it take the bus to get from the **High Street** to **Queen Street**? _____

Which **two** bus stops do you think are the **closest** to each other? _____

On fire:

Destination	Journey A	Journey B	Journey C
London	10:15	11:30	16:40
Derby	12:15		18:05
Sheffield	12:40	13:10	18:30
York	13:20	13:55	19:15
Newcastle	14:05	14:35	
Duration			3 hours

1. Journey B takes 1 hour 15 minutes to get from London to Derby. What time do you arrive at Derby? _____
2. Journey C takes a total of 3 hours. What time does it arrive at Newcastle?
   _____
3. How long do journeys A and B take? _____
4. You need to be at York for 13:30. Which is the best journey to take?
   _____
5. You get to Sheffield at 16:50. How long do you have to wait for the next train to Newcastle? _____
6. How many stations does the 11:30 train stop at before it reaches York?
   _____

Further Challenge:

9 Here is part of the bus timetable from Riverdale to Mott Haven.

Riverdale	10:02	10:12	10:31	10:48
Kingsbridge	10:11	10:21	10:38	10:55
Fordham	10:28	10:38	10:54	11:11
Tremont	10:36	10:44	11:00	11:17
Mott Haven	10:53	11:01	11:17	11:34

How many minutes does it take the 10:31 bus from Riverdale to reach Mott Haven?

minutes

1 ma

Mr Evans is at Fordham at 10:30

What is the **earliest** time he can reach Tremont on the bus?

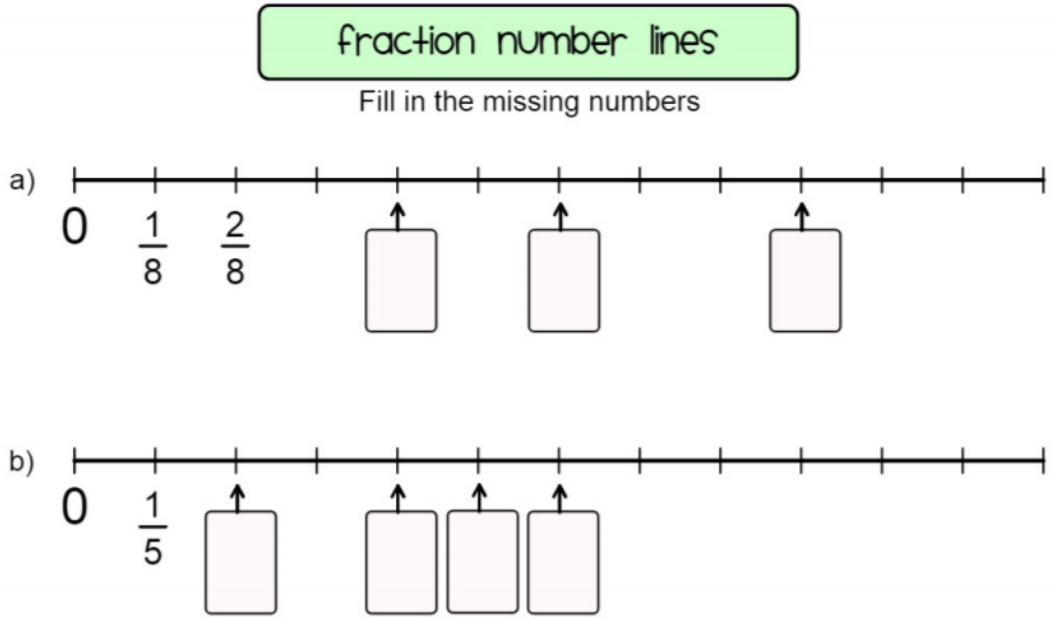
1 ma

Lesson 5

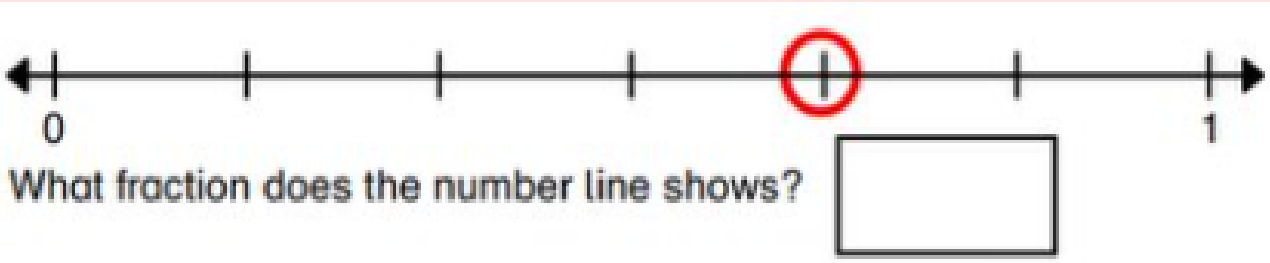
Time

OMS: Ordering Fractions on a number line

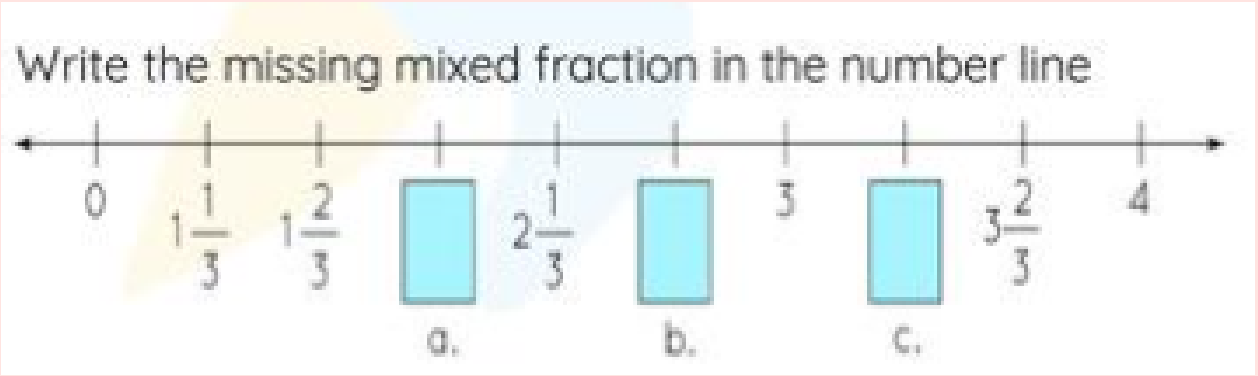
Hot



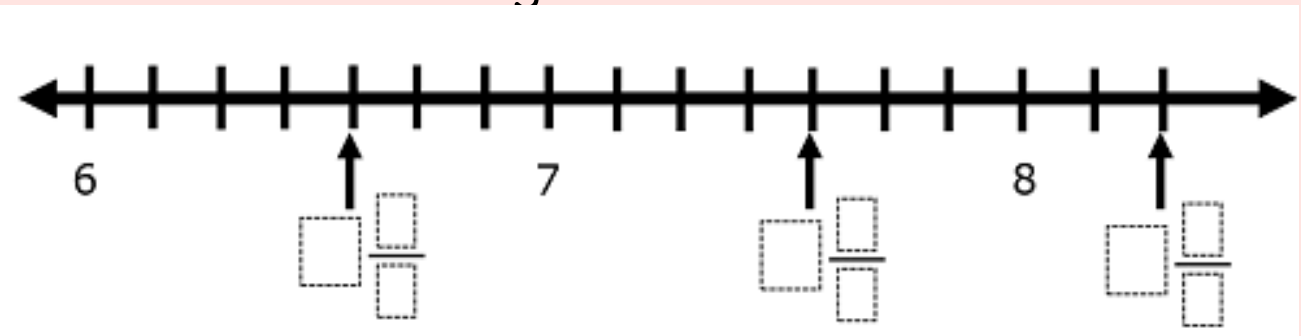
Hotter:



On fire

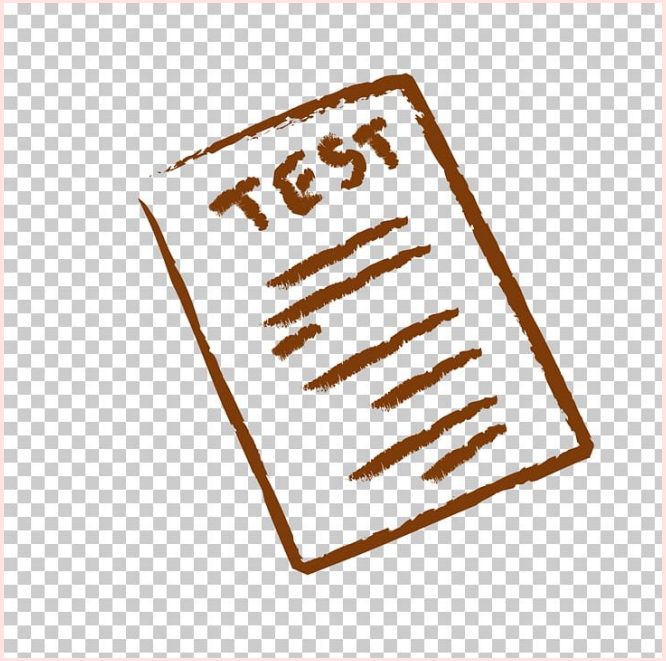


Further Challenge:



Big Maths Beat That

https://www.youtube.com/watch?v=o9U8dycLjnc



Learning Intention: To use measure.

Success Criteria:

On fire: I can apply my understanding of different units of time to solve problems.

Hotter: I can convert between different units of time i.e seconds to minutes, minutes to hours, hours to days etc.

Hot: I know what the different units of time are i.e. seconds, minutes, hours, months, years etc.

Think, Pair, Share...

What have we been learning about this week?

Today we will be using and applying our understanding of time to a variety of Test-styled questions.

I do:

Here is the calendar for the August when Luke was on holiday.

August					
Monday	July 29	5	12	19	26
Tuesday	July 30	6	13	20	27
Wednesday	July 31	7	14	21	28
Thursday	1	8	15	22	29
Friday	2	9	16	23	30
Saturday	3	10	17	24	31
Sunday	4	11	18	25	Sept 1

Luke came back from holiday on August 4th.

He went on holiday two weeks **before** that date.

On what **date** did Luke go on holiday.

July

We do:

Write in the missing numbers.

36 months = ☐ years

96 hours = ☐ days

77 days = ☐ weeks

You do:

These are all times on the same morning.

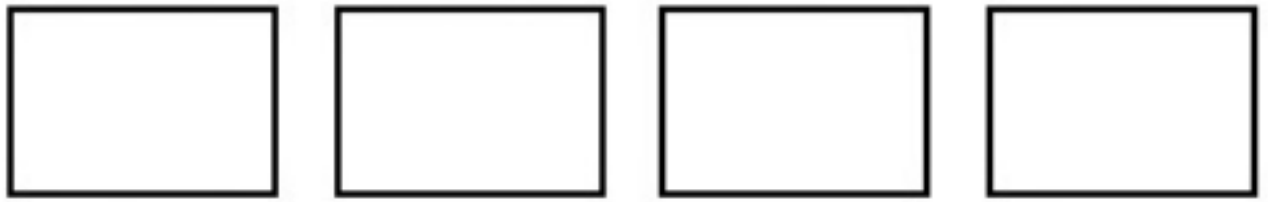
A 7:40 am

B quarter to eight

C four minutes to eight

D half past seven

Write the letters for the times in order, starting with the earliest.



Question relay - Choose a question that you would like to answer. Stick it into your book and show your working out.

Play

Here is some information about a play.

Starts at **7:30 pm**
First act lasts **48** minutes
Interval lasts **15** minutes
Second act lasts **47** minutes

At what time does the second act end?

Show your method

pm

2 marks

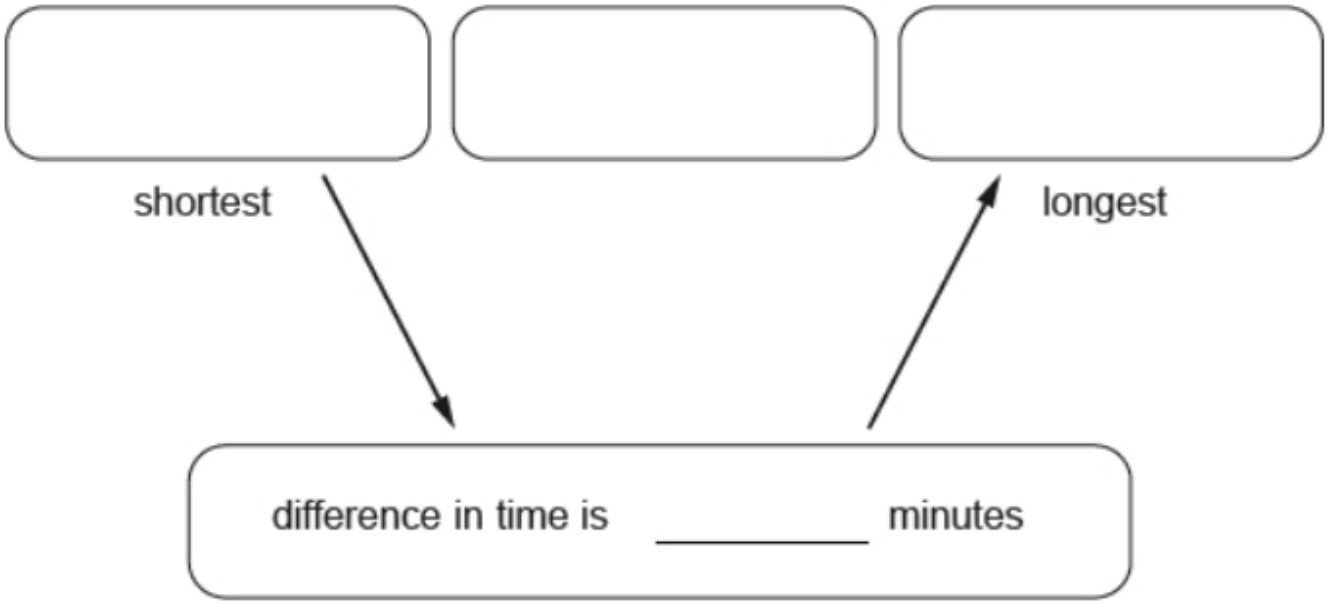
Time intervals

Look at these three time intervals.

1 hour 25 minutes	125 minutes	1.25 hours

Arrange them in **size order**, shortest first.

Then fill in the missing number of minutes.



2 marks

These are the opening times at Sparkles Swimming Pool.

Monday	Closed
Tuesday to Friday	11am to 6:30pm
Saturday	9am to 6pm
Sunday	10:30am to 4:30pm

How many hours is the swimming pool open on Saturdays?

hours

1 mark

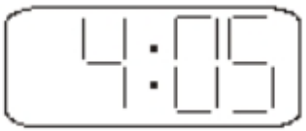
Julia arrived at the swimming pool at 4:30pm on a Wednesday.

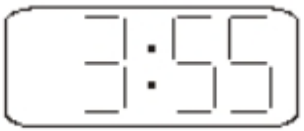
How long could she stay before closing time?

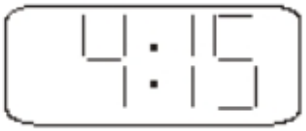
1 mark

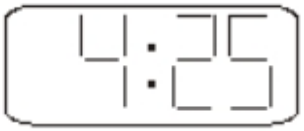
The time on a digital clock is **2:45**

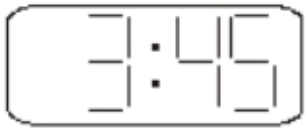
What time will the digital clock show **one and a half hours** later?
Tick (✓) the correct time below.











1 mark

Times

(a) Complete the missing times.

The first one is done for you.

10 o'clock in the morning	10:00
Quarter to 7 in the morning	
Quarter past 7 in the evening	

2 marks

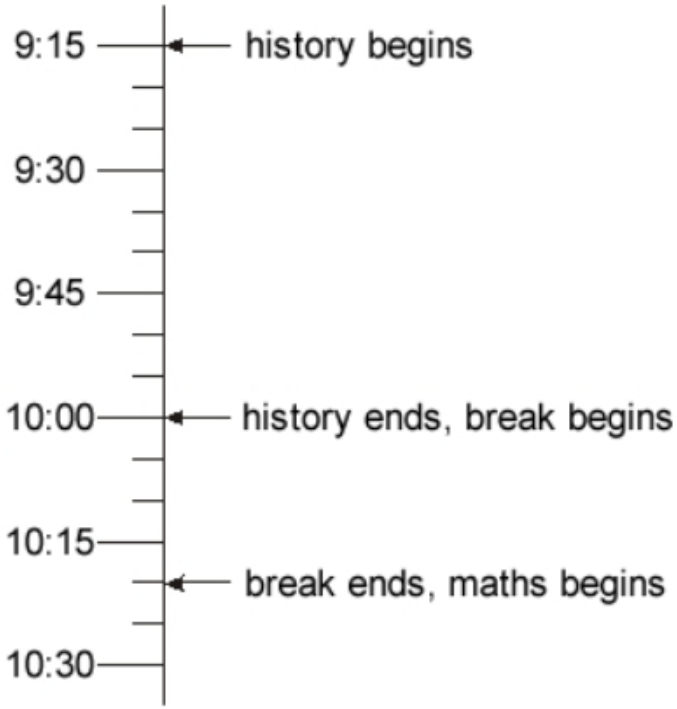
(b) Complete the missing time.

	21:00

1 mark

School timetable

Here is part of Nina's school timetable for Monday.



(a) For how many minutes does Nina's **history** lesson last?

minutes

1 mark

The cake started to cook at this time.

09 : 25

It cooked for **50** minutes.

At what time did it finish cooking?

:

1 mark