



- 1) a) 

12 p.m. - 3 p.m.	>	3 p.m. - 5 p.m.
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- b) 

07:00 a.m. - 09:00 a.m.	=	07:00 p.m. - 09:00 p.m.
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- c) 

12 p.m. - 1:00 p.m.	<	12:00 a.m. - 1:00 p.m.
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- d) 

1:00 a.m. - 2:00 a.m.	<	11:00 a.m. - 12:30 p.m.
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- 2) a) The duration of the train to Birmingham is 1 hour 30 minutes.  
 b) The train journey to London is shorter than the journey to Manchester.  
 c) The train journey to Manchester is longer than the journey to Birmingham.  
 d) London 

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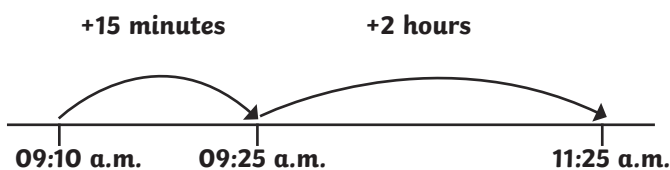
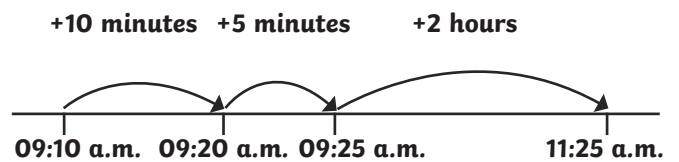
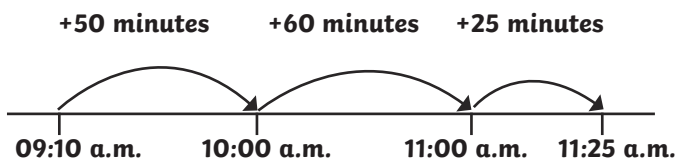
 Manchester 

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 Birmingham.

- 3) a) = 2 hours 15 minutes  
 b) = 1 hour 30 minutes  
 c) = 2 hours 15 minutes  
 b) is the shortest duration of time.

- 1) a) 02:15 would be the best time to win a race out of the three times shown as it is the shortest time. Winning a race means your time is shorter/less/quicker than any other.  
 b) 02:30 would be the time to choose as you want to show the longest amount of time you can sprint for and 02:30 is the longest duration of time.
- 2) Although they set off at different times, their journey times were the same. Francis' journey lasted 35 minutes and so did Toby's.
- 3)



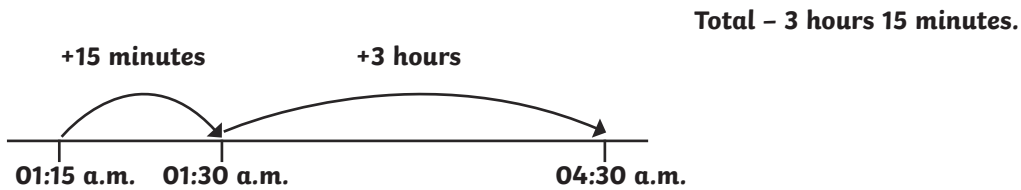
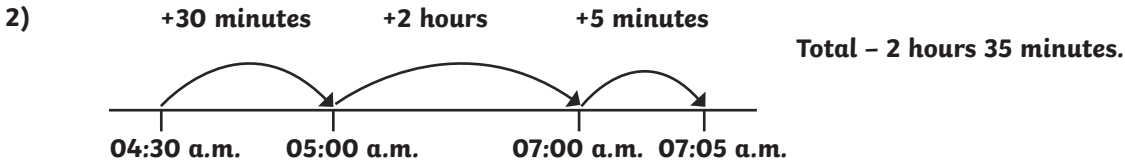
Amongst other possibilities.



- 1) Jim – 50 minutes to get round.  
 Anna – 50 minutes to get round.  
 Ramesh – 1 hour 20 minutes to get round.

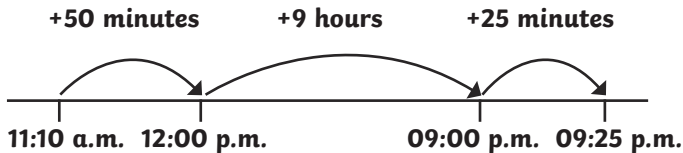
Ramesh ran the cross-country course in the longest amount of time so he was the slowest.

As Jim and Anna both ran the distance in the same amount of time, they both ended up running the cross-country course in the shortest amount of time, which was 50 minutes.



The difference between 2 hours 35 minutes and 3 hours 15 minutes = 40 minutes.

- 3) There are a wide variety of number lines, including:



9 hours + 50 minutes + 25 minutes = 10 hours 15 minutes.



1) Use the symbols  $<$ ,  $>$  and  $=$  to compare the durations.

- a) 12 p.m. – 3 p.m.  3 p.m. – 5 p.m.      c) 12 p.m. – 1:00 p.m.  12:00 a.m. – 1:00 p.m.
- b) 07:00 a.m. – 09:00 a.m.  07:00 p.m. – 09:00 p.m.      d) 1:00 a.m. – 2:00 a.m.  11:00 a.m. – 12:30 p.m.

2) Use the timetable to complete the sentences about the duration of train journeys.

Destination	Train Departs	Train Arrives
Birmingham	07:45 a.m.	9:15 a.m.
London	08:30 a.m.	10:00 a.m.
Manchester	1:30 p.m.	3:10 p.m.

- a) The duration of the train to Birmingham is \_\_\_\_\_ hour \_\_\_\_\_ minutes.
- b) The train journey to London is \_\_\_\_\_ than the journey to Manchester.
- c) The train journey to Manchester is \_\_\_\_\_ than the journey to Birmingham.

Use  $<$ ,  $>$  or  $=$  to make this statement correct.

- d) London  Manchester  Birmingham.

3) Which is the shortest duration of time? Circle the correct answer.

- a) 12:15 14:30      c)
- b) 10:30 a.m. 12:00 p.m.



1) Year 3 are using a stopwatch to record durations of events at a sports day. Each time is in minutes and seconds.

02:15

02:30

02:25

a) Which of the times would you choose if you wanted to win in a race? Explain fully.

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b) Which of the times would you choose if you wanted to show how long you could sprint before stopping? Explain how you know.

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2) Two friends are discussing their school journeys.



Francis

I left home at 07:55 a.m. and arrived at school at 08:30 a.m.

I left home at 08:00 a.m. and arrived at school at 08:35 a.m.



Toby

What is the same and what is different about their journeys?

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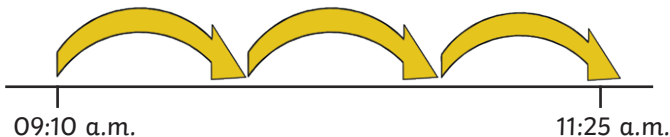
3) Year 3 are checking their work on durations of time.

Give two examples showing how James' number line can be completed.



James

I want to complete the number line in three steps or less.



1) Year 3 are discussing how quickly they ran the cross-country course during running club.



I started running at 03:40 p.m. and finished at 04:30 p.m.



Jim



Anna

I ran for fifty minutes.

My watch showed 15:25 when I started running and 16:45 when I finished.



Ramesh

Which child ran the the slowest around the cross-country course? Explain your answer.

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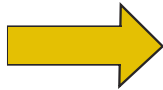
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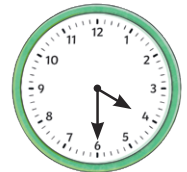
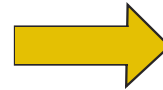
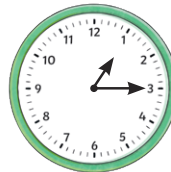
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2) What is the difference between the durations shown on the digital 24-hour and analogue clocks? Use number lines to help when calculating your answer.

04:30



07:05



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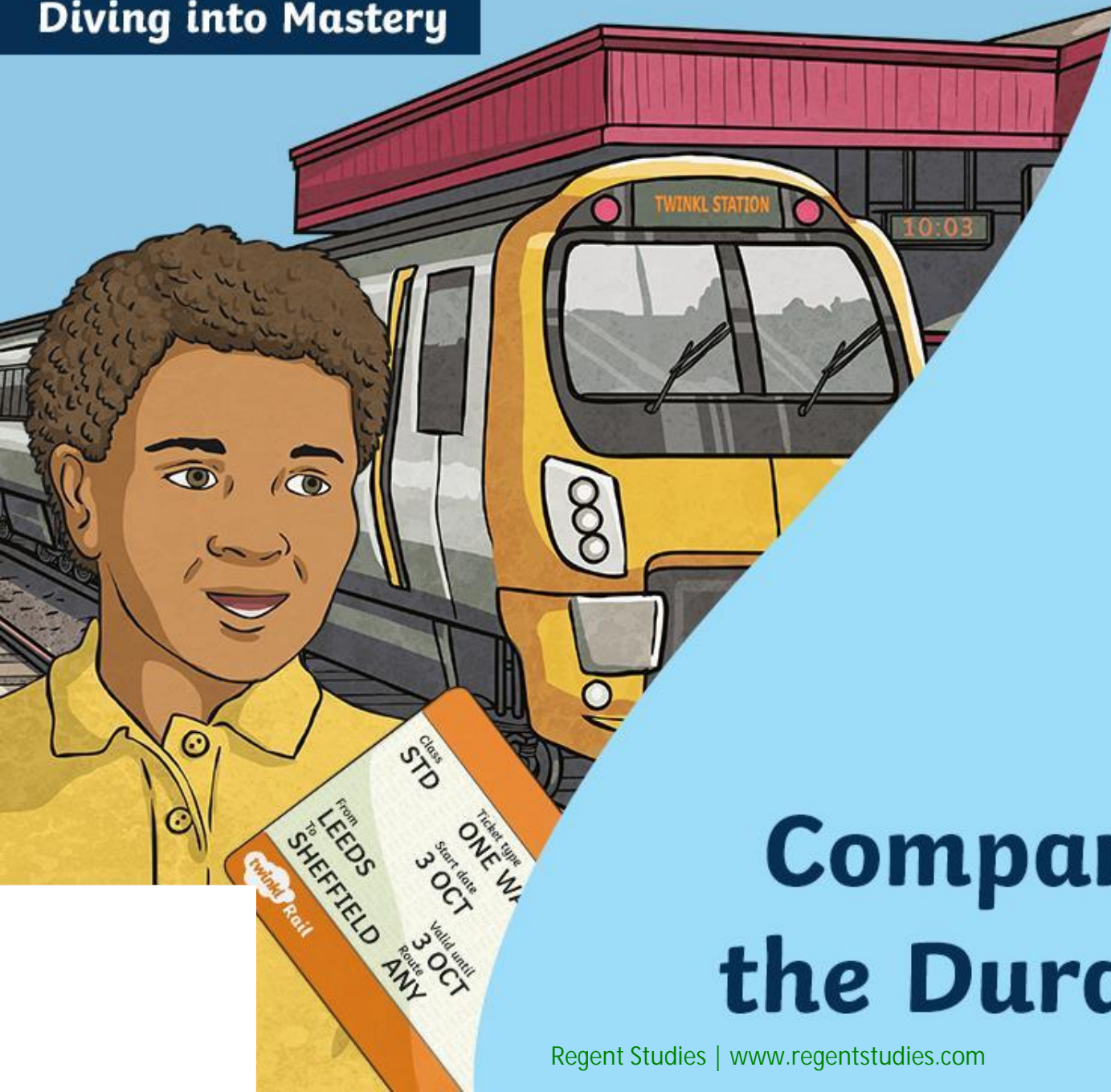
3) Using number lines, find 3 different ways to calculate the duration between the times shown.

11:10 a.m. 09:25 p.m.

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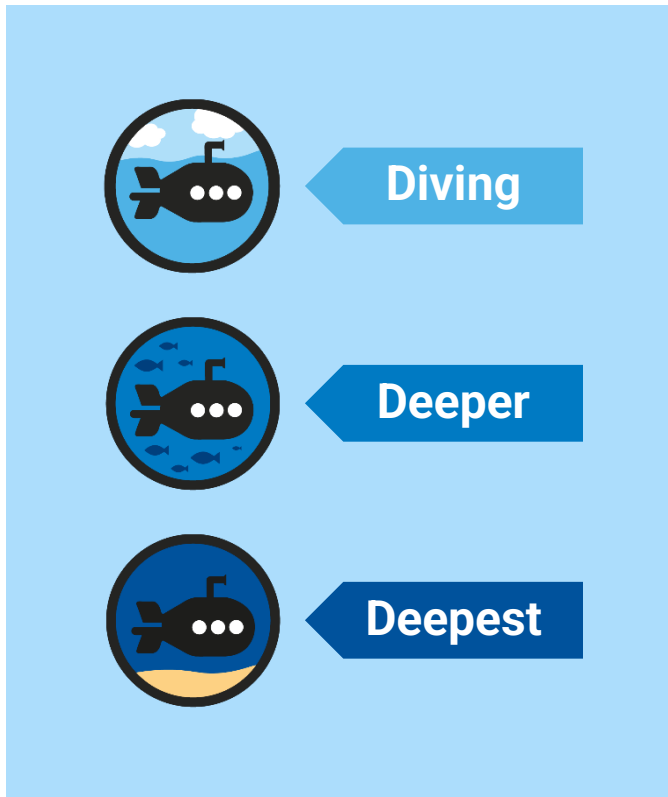
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## Comparing the Duration

# Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:



These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

# Aim

- Compare durations of events [for example to calculate the time taken by particular events or tasks].





Which symbol can be used to compare the duration?

3:00 a.m. – 05:00 a.m.



3:30 p.m. – 5:30 p.m.



## Comparing the Duration

## Diving



The timetable shows train times in Spain. Which option correctly completes the sentence?

Destination	Train departs	Train arrives
Madrid	09:10 a.m.	12:15 p.m.
Barcelona	09:20 a.m.	12:20 p.m.
Valencia	2:30 p.m.	5:20 p.m.

$$50 \text{ minutes} + 15 \text{ minutes} = 1 \text{ hour } 5 \text{ minutes} \\ + 2 \text{ hours} = 3 \text{ hours } 5$$

The duration of the journey to Madrid is 3 hours 5 minutes.

09:10 a.m.

10:00 a.m.

12:00 p.m.

12:15 p.m.

3 hours

3 hours 5 minutes

3 hours 10 minutes

3 hours 15 minutes

## Comparing the Duration

## Deeper



Two friends are discussing their journey to football practice.

Which child had the shortest journey to football practice? Explain fully.



Thomas

I left home at 09:20 a.m.  
and arrived at football  
practice at 10:15 a.m.

I left home at 09:25 a.m.  
and arrived at football  
practice at 10:05 a.m.



Raj

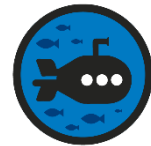
**Thomas'**  
**journey is 40**  
**minutes long.**

**Raj's**  
**journey is 55**  
**minutes long.**

**Thomas'**  
**journey is the**  
**shortest.**

## Comparing the Duration

## Deeper



Year 3 are checking their work on durations of time.

I want to complete the number line in three steps or less.



What different number lines can you think of?

**Two Steps**

+ 5 hours

+ 20 minutes

**5 hours  
20 minutes**

01:15 p.m.

**Three Steps**

+ 10 minutes

+ 10 minutes

+ 5 hours

01:15 p.m.

**5 hours  
20 minutes**

01:15 p.m.

01:25 p.m.

01:35 p.m.

06:35 p.m.

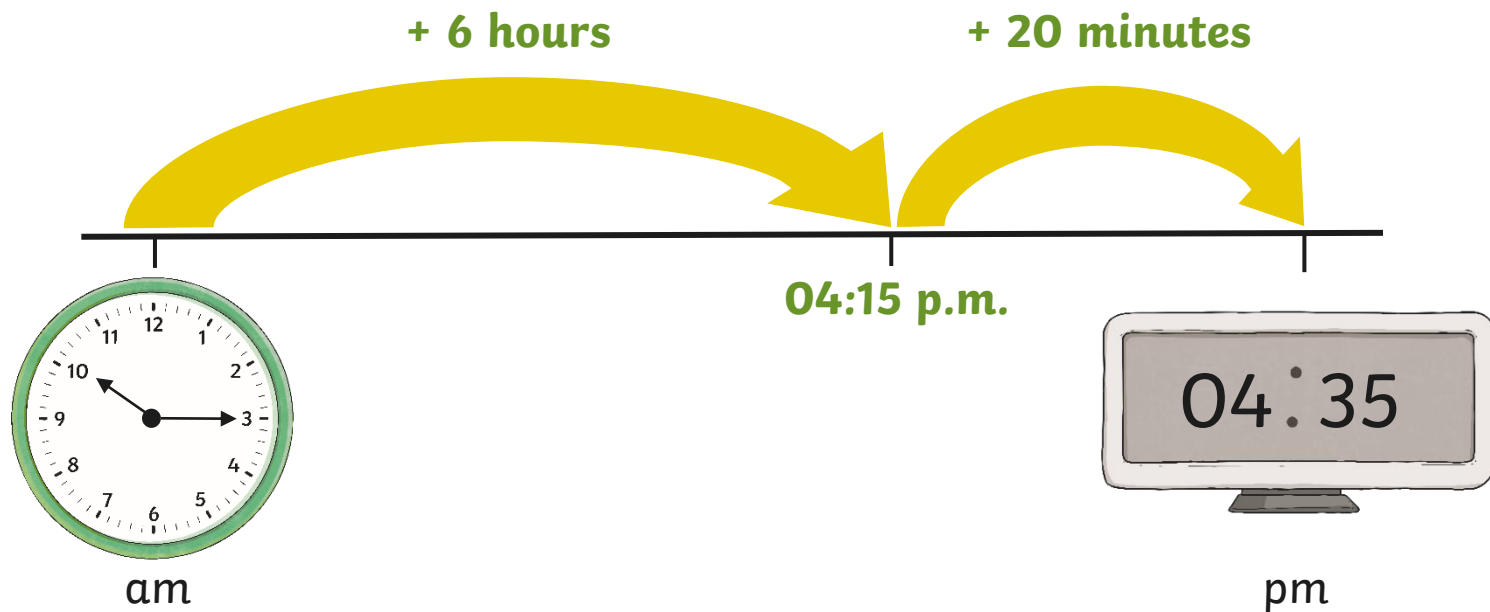
## Comparing the Duration

## Deepest



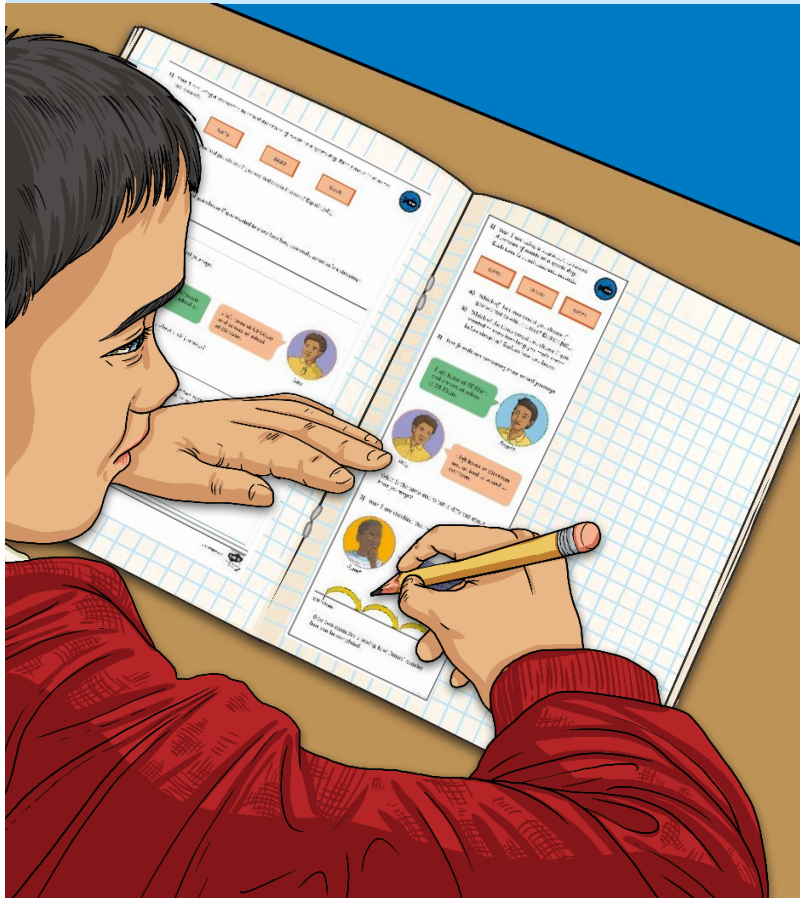
Show different ways you can calculate the duration between the times shown.

Various written calculations and number lines with different number hops can be used to show the answer of 6 hours 20 minutes. For example:



# Comparing the Duration

Dive in by completing your own activity!



1) Year 3 and Year 4 students are comparing the duration of their school journeys.

I started at 03:40pm and finished at 04:30pm.

1) Use the symbols  $<$ ,  $>$  and  $=$  to compare the durations.

a) 12 p.m. - 3 p.m.  3 p.m. - 5 p.m. c) 12 p.m. - 1:00 p.m.  12:00 a.m. - 1:00 p.m.

b) 07:00 a.m. - 09:00 a.m.  07:00 p.m. - 09:00 p.m. d) 1:00 a.m. - 2:00 a.m.  11:00 a.m. - 12:30 p.m.

2) Use the timetable to complete the sentences about the duration of train journeys.

Destination	Train Departs	Train Arrives
Birmingham	07:45 a.m.	9:15 a.m.
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Manchester	1:30 p.m.	3:10 p.m.

a) The duration of the train to Birmingham is \_\_\_\_\_ hour \_\_\_\_\_ minutes.

b) The train journey to London is \_\_\_\_\_ than the journey to Manchester.

c) The train journey to Manchester is \_\_\_\_\_ than the journey to Birmingham.

Use  $<$ ,  $>$  or  $=$  to make this statement correct.

d) London  Manchester  Birmingham.

3) Which is the shortest duration of time? Circle the correct answer.

a) 12:45  $\rightarrow$  16:30

b) 10:30 a.m.  $\rightarrow$  12:00 p.m.

12:45  $\rightarrow$  16:30

10:30 a.m.  $\rightarrow$  12:00 p.m.

12:45  $\rightarrow$  16:30

10:30 a.m.  $\rightarrow$  12:00 p.m.

twinkl







1) Use the symbols  $<$ ,  $>$  and  $=$  to compare the durations.



- a) 12 p.m. – 3 p.m.  3 p.m. – 5 p.m.
- b) 07:00 a.m. – 09:00 a.m.  07:00 p.m. – 09:00 p.m.
- c) 12 p.m. – 1:00 p.m.  12:00 a.m. – 1:00 p.m.
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- a) 12:15 14:30
- b) 10:30 a.m. 12:00 p.m.
- c)

- 1) Year 3 are using a stopwatch to record durations of events at a sports day. Each time is in minutes and seconds.



02:15

02:30

02:25

- a) Which of the times would you choose if you wanted to win in a race? Explain fully.
- b) Which of the times would you choose if you wanted to show how long you could sprint before stopping? Explain how you know.

- 2) Two friends are discussing their school journeys.

I left home at 07:55 a.m. and arrived at school at 08:30 a.m.



Francis



Toby

I left home at 08:00 a.m. and arrived at school at 08:35 a.m.

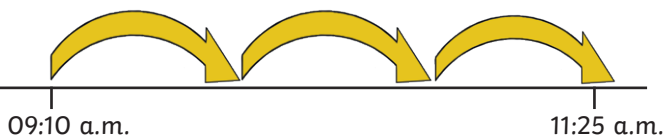
What is the same and what is different about their journeys?

- 3) Year 3 are checking their work on durations of time.



James

I want to complete the number line in three steps or less.



Give two examples showing how James' number line can be completed.

- 1) Year 3 are using a stopwatch to record durations of events at a sports day. Each time is in minutes and seconds.



02:15

02:30

02:25

- a) Which of the times would you choose if you wanted to win in a race? Explain fully.
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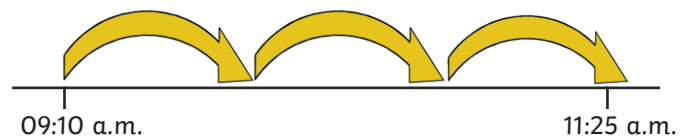
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Give two examples showing how James' number line can be completed.

1) Year 3 are discussing how quickly they ran the cross-country course during running club.



I started running at 03:40 p.m. and finished at 04:30 p.m.



Jim



Anna

I ran for fifty minutes.

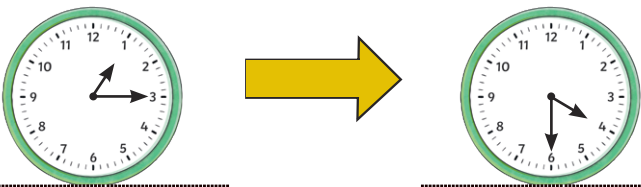
My watch showed 15:25 when I started running and 16:45 when I finished.



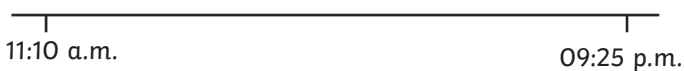
Ramesh

Which child ran the the slowest around the cross-country course? Explain your answer.

2) What is the difference between the durations shown on the digital 24-hour and analogue clocks? Use number lines to help when calculating your answer.



3) Using number lines, find 3 different ways to calculate the duration between the times shown.



1) Year 3 are discussing how quickly they ran the cross-country course during running club.



I started running at 03:40 p.m. and finished at 04:30 p.m.



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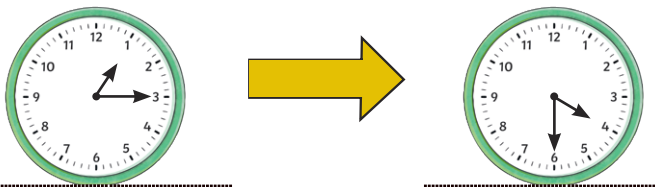
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