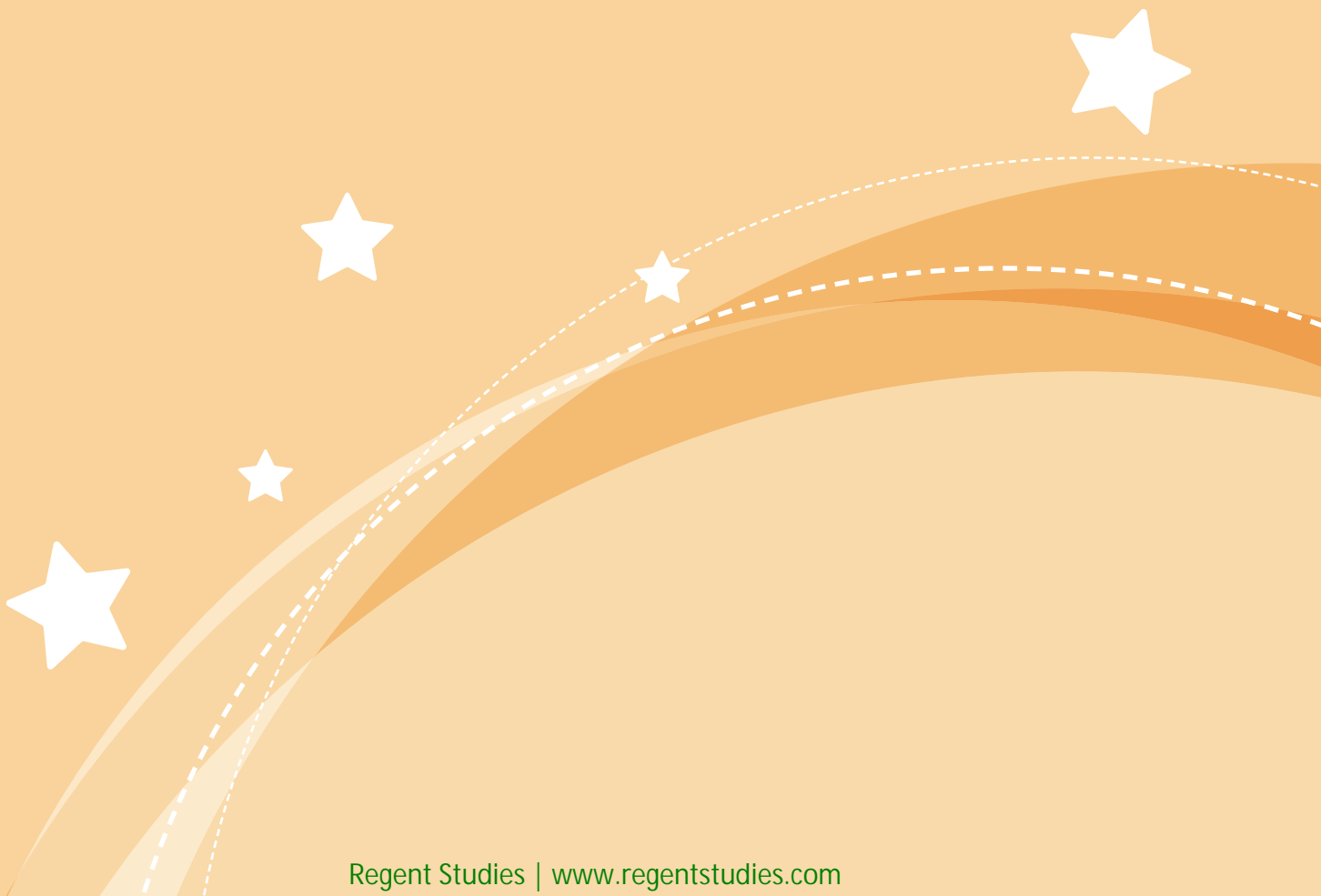
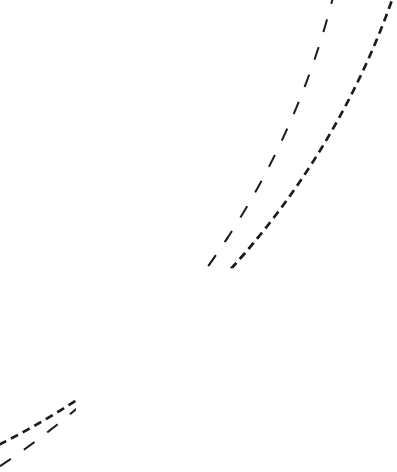


Mathematics Guide







Timed Events Problems

I can solve problems about the duration of events.



1) How much time passes between the following times?

a) 3:10 p.m. to 4:15 p.m.

b) 2:15 p.m. to 3:40 p.m.

c) 10:40 a.m. to 12:50 p.m.

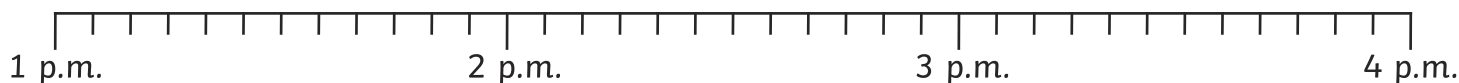
d) 5:10 p.m. to 8:50 p.m.

e) 7:20 p.m. to 11:10 p.m.

f) 10:20 p.m. to 2:40 a.m. (the next day)

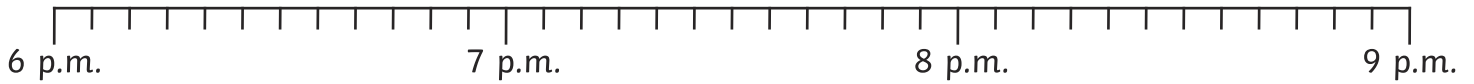
2) Answer these questions. Use the timeline to help you.

a) French starts at 1:20 p.m. and lasts 55 minutes. What time does it finish?

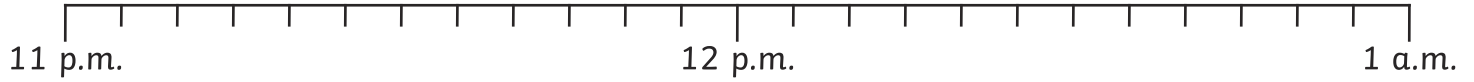




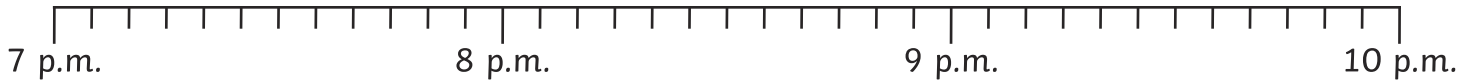
b) My favourite TV show starts at 6:55 p.m. It lasts 1 hour and 10 minutes.
What time does it finish?



c) I woke up at 12:35 a.m. I had been asleep for 1 hour and 20 minutes.
What time did I go to sleep?



d) My dad drove me to my auntie's house. The journey was 1 hour and 15 minutes.
We arrived at 9:10 a.m. What time did we set off?



3) Answer these word problems by ticking all the boxes that show the correct answer.

a) I went to town on the bus. The journey took 25 minutes. I went around the shops for 45 minutes then had a drink. If I got on the bus at 10:30 a.m., what time did I have a drink?

<input type="checkbox"/> 11:40 a.m.	<input type="checkbox"/> 11: 30	<input type="checkbox"/> 11: 30 a.m.	<input type="checkbox"/> twenty to twelve	<input type="checkbox"/> 20 to 12	<input type="checkbox"/> twenty past twelve
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b) Carla's birthday party finished at 4:25 p.m. The party lasted 1 hour and 40 minutes.
What time did it start?

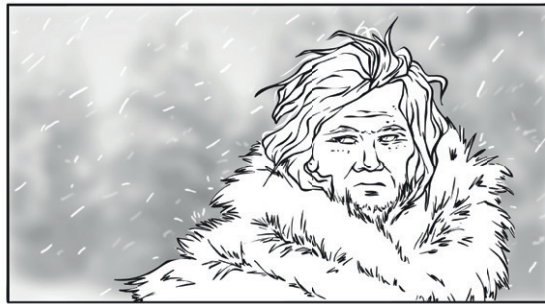
<input type="checkbox"/> 1:45 p.m.	<input type="checkbox"/> $\frac{1}{4}$ to 2	<input type="checkbox"/> 2:45 p.m.	<input type="checkbox"/> quarter to 3	<input type="checkbox"/> $\frac{1}{4}$ to 3	<input type="checkbox"/> 2:40 p.m.
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4) Here is a table to show the start and end time of films. Calculate how long each film lasts (in minutes), then order the films from shortest to longest.

	Start	End	Length of Show
The True Way Home	12:15 p.m.	2:55 p.m.	
Spy Sisters	1:05 p.m.	3:35 p.m.	
Don't Lose the Dog	4:35 p.m.	5:55 p.m.	

shortest	←	→	longest





Timed Events Problems Answers

Question	Answer
1. How much time passes between the following times?	
a.	1 hour 5 minutes (65 minutes)
b.	1 hour 25 minutes (85 minutes)
c.	2 hours 10 minutes (130 minutes)
d.	3 hours 40 minutes (220 minutes)
e.	3 hours 50 minutes (230 minutes)
f.	4 hours 20 minutes (260 minutes)
2. Answer these questions. Use the timeline to help.	
a.	2:15 p.m.
b.	8:05 p.m.
c.	11:15 p.m.
d.	7:55 a.m.

3. Answer these word problems by putting a tick by all the answers which give the correct answer.			
a.	<input checked="" type="checkbox"/> 11:40 a.m. <input checked="" type="checkbox"/> twenty to twelve <input checked="" type="checkbox"/> 20 to 12		
b.	<input checked="" type="checkbox"/> 2:45 p.m. <input checked="" type="checkbox"/> quarter to 3 <input checked="" type="checkbox"/> $\frac{1}{4}$ to 3		
4. Calculate how long each film lasts (in minutes), then order the films from shortest to longest.			
The True Way Home	12:15 p.m.	2:55 p.m.	160 minutes
Spy Sisters	1:05 p.m.	3:35 p.m.	150 minutes
Don't Lose the Dog	4:35 p.m.	5:55 p.m.	80 minutes
shortest ←————→ longest			
Don't Lose the Dog	Spy Sisters	The True Way Home	



Timed Events Problems

I can solve problems about the duration of events.



1) How many hours pass between the following times?

a) 2:00 p.m. to 4:00 p.m.

b) 3:00 p.m. to 6:00 p.m.

c) 10:30 a.m. to 1:30 p.m.

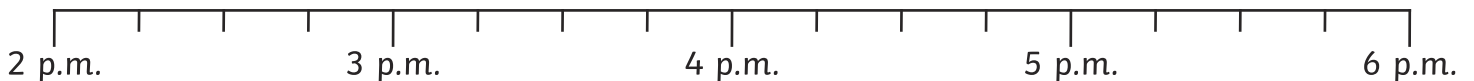
d) 3:30 p.m. to 10:30 p.m.

e) 2:30 p.m. to 11:30 p.m.

f) 9:30 p.m. to 1:30 a.m. (the next day)

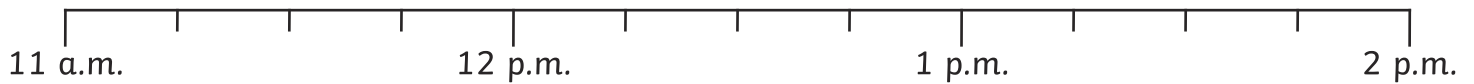
2) Answer these questions. Use the timeline to help you.

a) At 3:15 p.m. I leave school. It takes me 30 minutes to walk home.
What time do I arrive home?

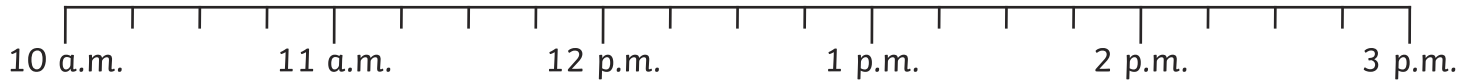




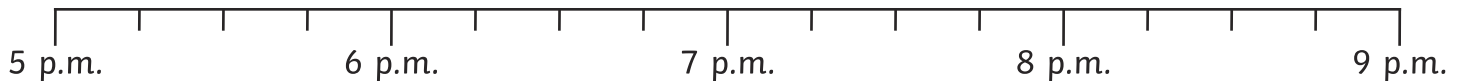
b) Maths finishes at 12:30 p.m. We then have lunch for 45 minutes.
What time does lunch end?



c) I get off the bus at 2:45 p.m. The journey lasted 30 minutes.
What time did the bus leave?

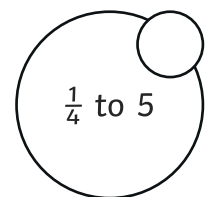
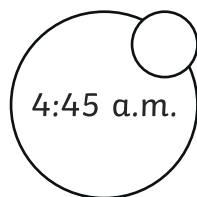
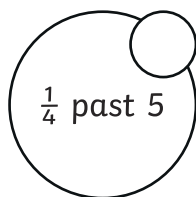
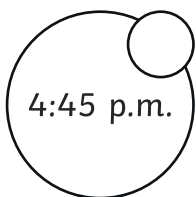


d) My favourite TV show finishes at 8:15 p.m. It lasts 45 minutes.
What time did it start?

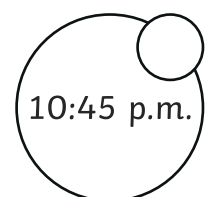
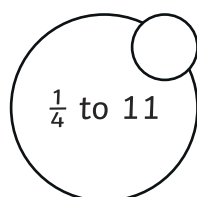
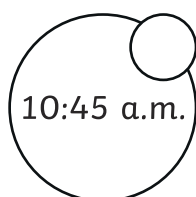
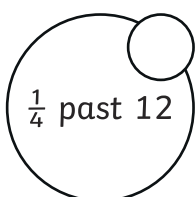


3) Answer these word problems by ticking all the boxes that show the correct answer.

a) Poppy walks to her friend's house. She sets off at 4:15 p.m. It takes her 30 minutes to get there. What time does she arrive?



b) Keenan finishes tidying his bedroom at 11:30 a.m. It took him 45 minutes to tidy it.
When did he start?

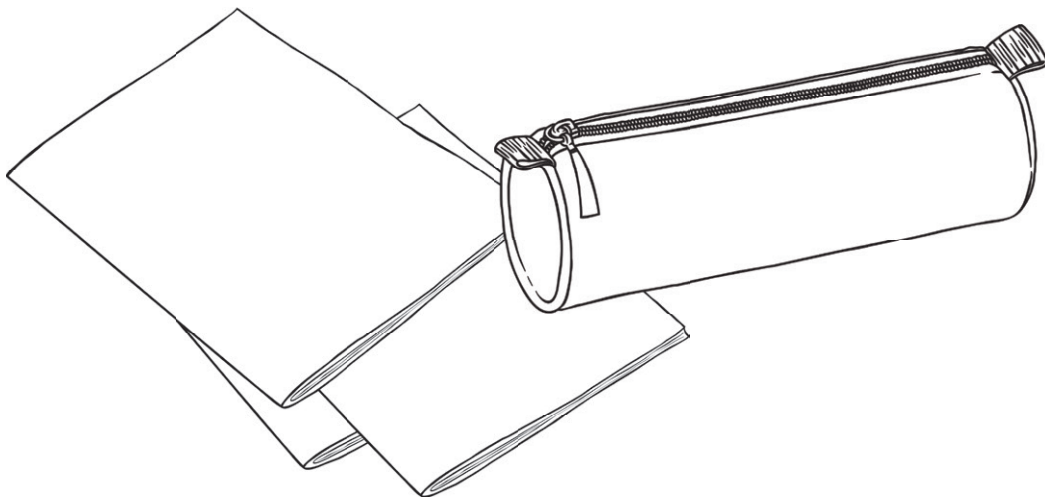




4) Here is a table to show the start and end time of each lesson. Calculate how long each lesson lasts (in minutes), then order the lessons from shortest to longest.

	Start	End	Length of Lesson
Maths	9:15 a.m.	10:15 a.m.	
Literacy	10:30 a.m.	11:15 a.m.	
PE	1:15 p.m.	1:45 p.m.	

shortest	←	→	longest





Timed Events Problems **Answers**

Question	Answer
1. How many hours pass between the following times?	
a.	2 hours
b.	3 hours
c.	3 hours
d.	7 hours
e.	9 hours
f.	4 hours
2. Answer these questions. Use the timeline to help.	
a.	3:45 p.m.
b.	1:15 p.m.
c.	2:15 p.m.
d.	7:30 p.m.

3. Answer these word problems by putting a tick by all the answers which give the correct answer.			
a.	<input checked="" type="checkbox"/> 4:45 p.m.	<input checked="" type="checkbox"/> $\frac{1}{4}$ to 5	
b.	<input checked="" type="checkbox"/> 10:45 a.m.	<input checked="" type="checkbox"/> $\frac{1}{4}$ to 11	
4. Calculate how long each lesson lasts (in minutes), then order the lessons from shortest to longest.			
Maths	9:15 a.m.	10:15 a.m.	60 minutes
Literacy	10:30 a.m.	11:15 a.m.	45 minutes
PE	1:15 p.m.	1:45 p.m.	30 minutes
shortest ←————→ longest			
PE	literacy	maths	



Timed Events Problems

I can solve problems about the duration of events.



1) How much time passes between the following times?

a) 3:00 p.m. to 4:15 p.m.

b) 3:15 p.m. to 3:30 p.m.

c) 10:30 a.m. to 12:45 p.m.

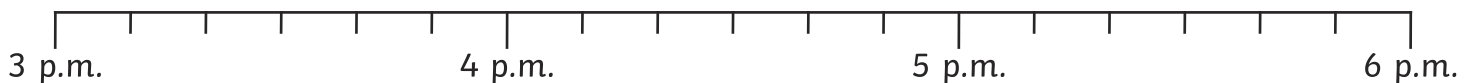
d) 5:30 p.m. to 8:15 p.m.

e) 2:15 p.m. to 8:30 p.m.

f) 11:30 p.m. to 2:00 a.m. (the next day)

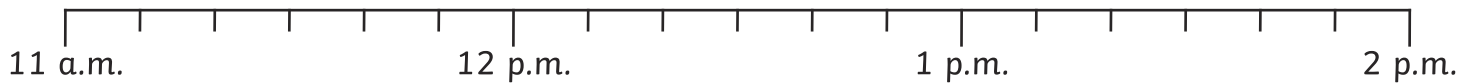
2) Answer these questions. Use the timeline to help you.

a) At 3:20 p.m. I set off to walk to my Grandma's house. It takes me 40 minutes to walk there. What time do I arrive?

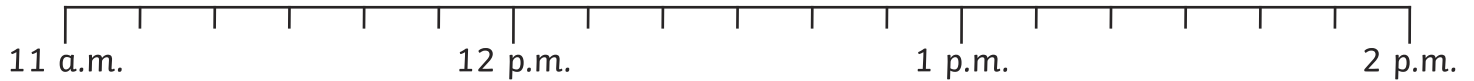




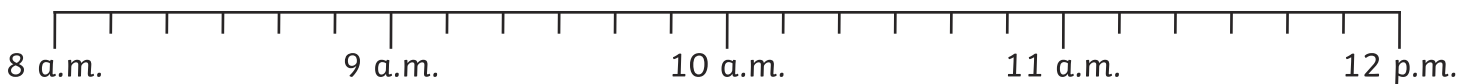
b) My dance lesson starts at 11:40 a.m. It lasts 1 hour and 10 minutes.
What time does it end?



c) I flew from London to Madrid. The flight lasted 2 hours and 30 minutes. If the plane landed at 1:40 p.m. What time did it take off?



d) My train arrives at the station at 11:10 a.m. The train journey lasted 50 minutes.
What time did the train depart?



3) Answer these word problems by ticking all the boxes that show the correct answer.

a) Tyrol meets his friend at the park at 10:20 a.m. They spend 30 minutes on the playground, then play football for 20 minutes. Then they go home. What time did they leave the park?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11:10 p.m.	ten to eleven	11:10 a.m.	ten past eleven	10 past 11	11:20

b) Trudi works on her homework project for 1 hour and 10 minutes. If she stops at 2:40 p.m., what time did she start work?

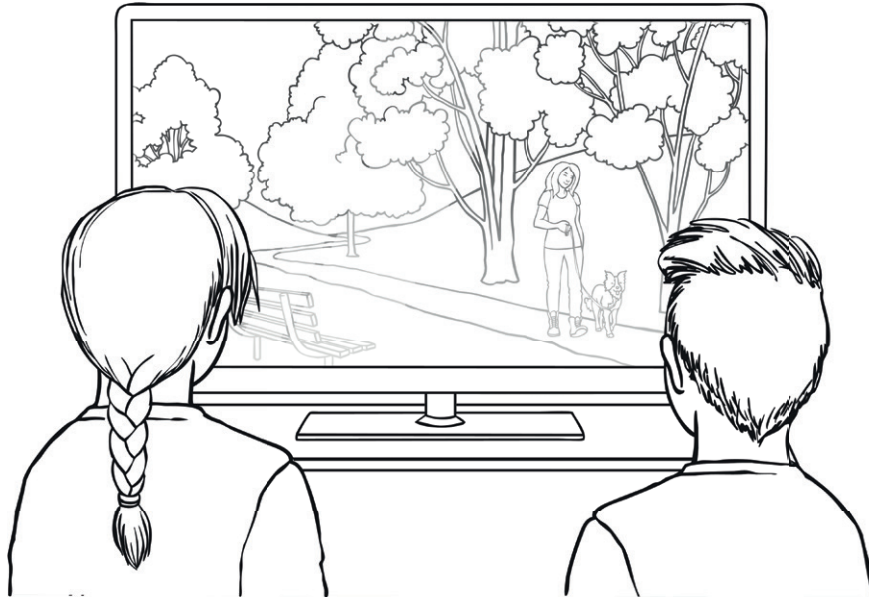
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1:30 p.m.	$\frac{1}{2}$ past 2	1:30 a.m.	half past one	30 minutes past 1	3:40 p.m.



4) Here is a table to show the start and end time of some TV shows. Calculate how long each programme lasts (in minutes), then order the programmes from shortest to longest.

	Start	End	Length of Show
Cartoon Capers	12:10 p.m.	1:00 p.m.	
Get that Dog!	1:00 p.m.	2:10 p.m.	
Funny Film Clips	2:20 p.m.	2:30 p.m.	

shortest	←	→	longest





Timed Events Problems **Answers**

Question	Answer
1. How much time passes between the following times?	
a.	1 hour 15 minutes (75 minutes)
b.	15 minutes
c.	2 hours 15 minutes (135 minutes)
d.	2 hours 45 minutes (165 minutes)
e.	6 hours 15 minutes (375 minutes)
f.	2 hours 30 minutes (150 minutes)
2. Answer these questions. Use the timeline to help.	
a.	4:00 p.m.
b.	12:50 p.m.
c.	11:10 a.m.
d.	10:20 a.m.

3. Answer these word problems by putting a tick by all the answers which give the correct answer.			
a.	<input checked="" type="checkbox"/> 11:10 a.m.	<input checked="" type="checkbox"/> ten past eleven	<input checked="" type="checkbox"/> 10 past 11
b.	<input checked="" type="checkbox"/> 1:30 p.m.	<input checked="" type="checkbox"/> half past one	<input checked="" type="checkbox"/> 30 minutes past 1
4. Calculate how long each programme lasts, then order the programmes from shortest to longest.			
Cartoon Capers	12:10 p.m.	1:00 p.m.	50 minutes
Get that Dog!	1:00 p.m.	2:10 p.m.	70 minutes
Funny Film Clips	2:20 p.m.	2:50 p.m.	30 minutes
shortest ←————→ longest			
Funny Film Clips	Cartoon Capers	Get that Dog!	

Measurement: Timed Events Problems

Aim: Compare durations of events (for example, to calculate the time taken by particular events or tasks). I can solve problems about the duration of events.	Success Criteria: I can calculate the amount of time that passes from one time to another. I can compare the length of timed events. I can order timed events.	Resources: Lesson Pack Whiteboards and pens – class set
	Key/New Words: Hours, minutes, timed, duration, length.	Preparation: Differentiated Timed Events Problems Activity Sheet – 1 per child

Prior Learning: It will be helpful if children have experience of using a.m. and p.m. (covered in Time Vocabulary (Lesson 2): Using A.M. and P.M.).

Learning Sequence

	How Many Hours? Children calculate the number of hours between two times shown on the Lesson Presentation .				
	Timelines: Children solve word problems about the duration of events using a timeline to calculate the answer.				
	Word Problems: In pairs, children solve time word problems, choosing all the correct forms of time shown on the Lesson Presentation .				
	Lesson Times: In pairs, children calculate the duration of different lessons and order the lessons by duration.				
	Timed Events Problems: Children complete the differentiated Timed Events Problems Activity Sheet , calculating the duration of timed events and answering word problems by using a timeline. <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 33%; text-align: center;"> <p>Children calculate the number of hours between two times. They use timelines (15-minute intervals) to solve time word problems. They sort timed events into duration order.</p> </td> <td style="width: 33%; text-align: center;"> <p>Children calculate the number of hours between two times. They use timelines (10-minute intervals) to solve time word problems. They sort timed events into duration order.</p> </td> <td style="width: 33%; text-align: center;"> <p>Children calculate the number of hours between two times. They use timelines (5-minute intervals) to solve time word problems. They sort timed events into duration order.</p> </td> </tr> </table>	<p>Children calculate the number of hours between two times. They use timelines (15-minute intervals) to solve time word problems. They sort timed events into duration order.</p>	<p>Children calculate the number of hours between two times. They use timelines (10-minute intervals) to solve time word problems. They sort timed events into duration order.</p>	<p>Children calculate the number of hours between two times. They use timelines (5-minute intervals) to solve time word problems. They sort timed events into duration order.</p>	
<p>Children calculate the number of hours between two times. They use timelines (15-minute intervals) to solve time word problems. They sort timed events into duration order.</p>	<p>Children calculate the number of hours between two times. They use timelines (10-minute intervals) to solve time word problems. They sort timed events into duration order.</p>	<p>Children calculate the number of hours between two times. They use timelines (5-minute intervals) to solve time word problems. They sort timed events into duration order.</p>			
	Film Times: In pairs, children work out the duration of films and answer reasoning problems based on these times.				

Masterit

Planit: Children create a timetable for their perfect day out. They construct a table to show the events, start times, end times and duration.

Investigateit: Children use the internet to find the times of train journeys from the same starting city to other cities. They calculate the duration of the journeys, and sort them into order of duration.

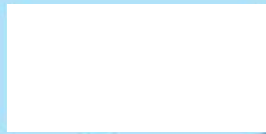
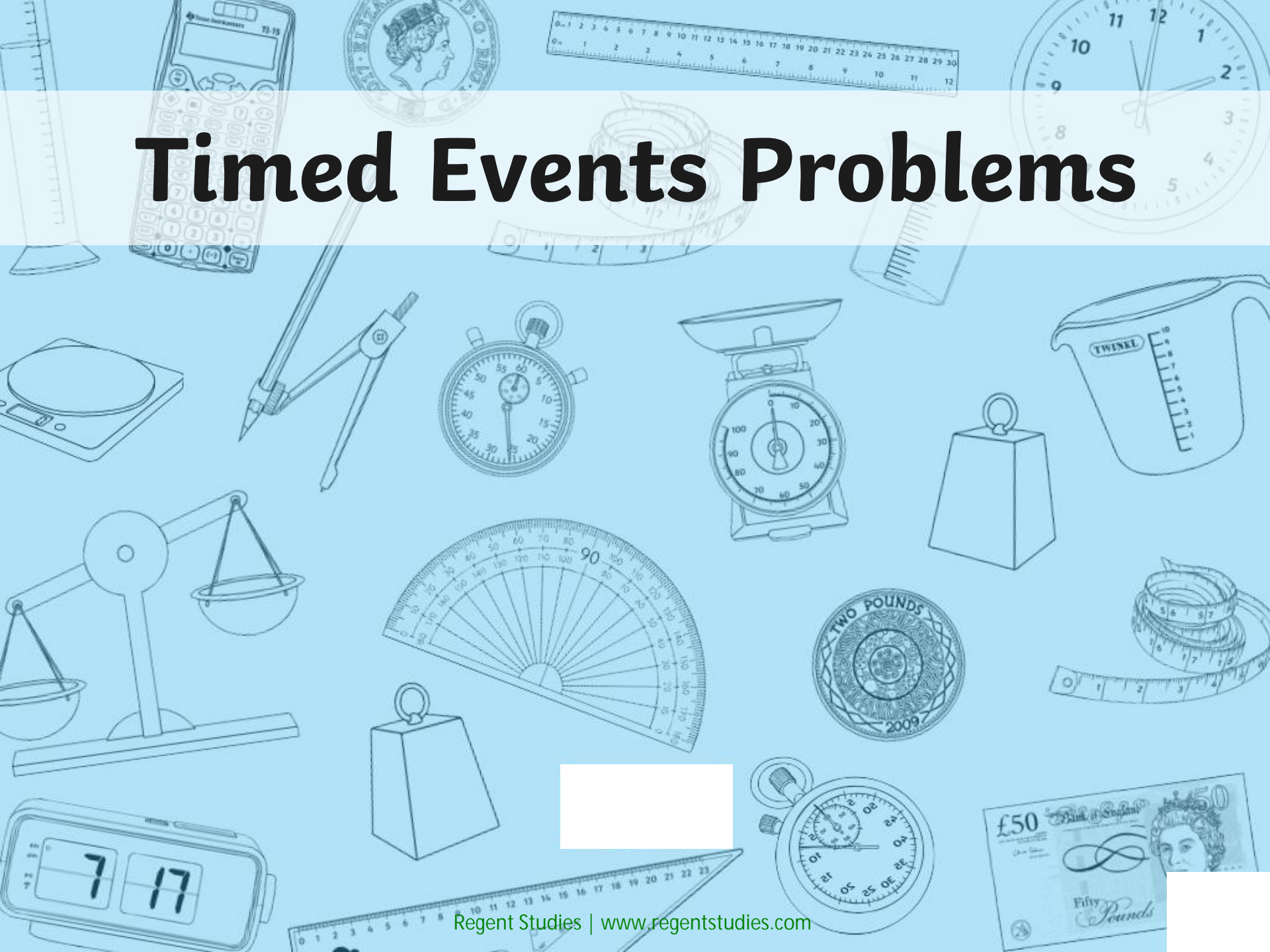


Maths

Measurement



Timed Events Problems



Aim

- I can solve problems about the duration of events.

Success Criteria

- I can calculate the amount of time that passes from one time to another.
- I can compare the length of timed events.
- I can order timed events.

How Many Hours?



How many hours is it from:



How Many Hours?



How many hours is it from:



How Many Hours?



How many hours is it from:



How Many Hours?



How many hours is it from:



How Many Hours?



How many hours is it from:



How Many Hours?



How many hours is it from:





Timelines

Here is a timeline from 2 p.m. to 6 p.m. in 15-minute intervals:

It's 4 p.m. I have to meet my friend in 45 minutes. What time will it be?

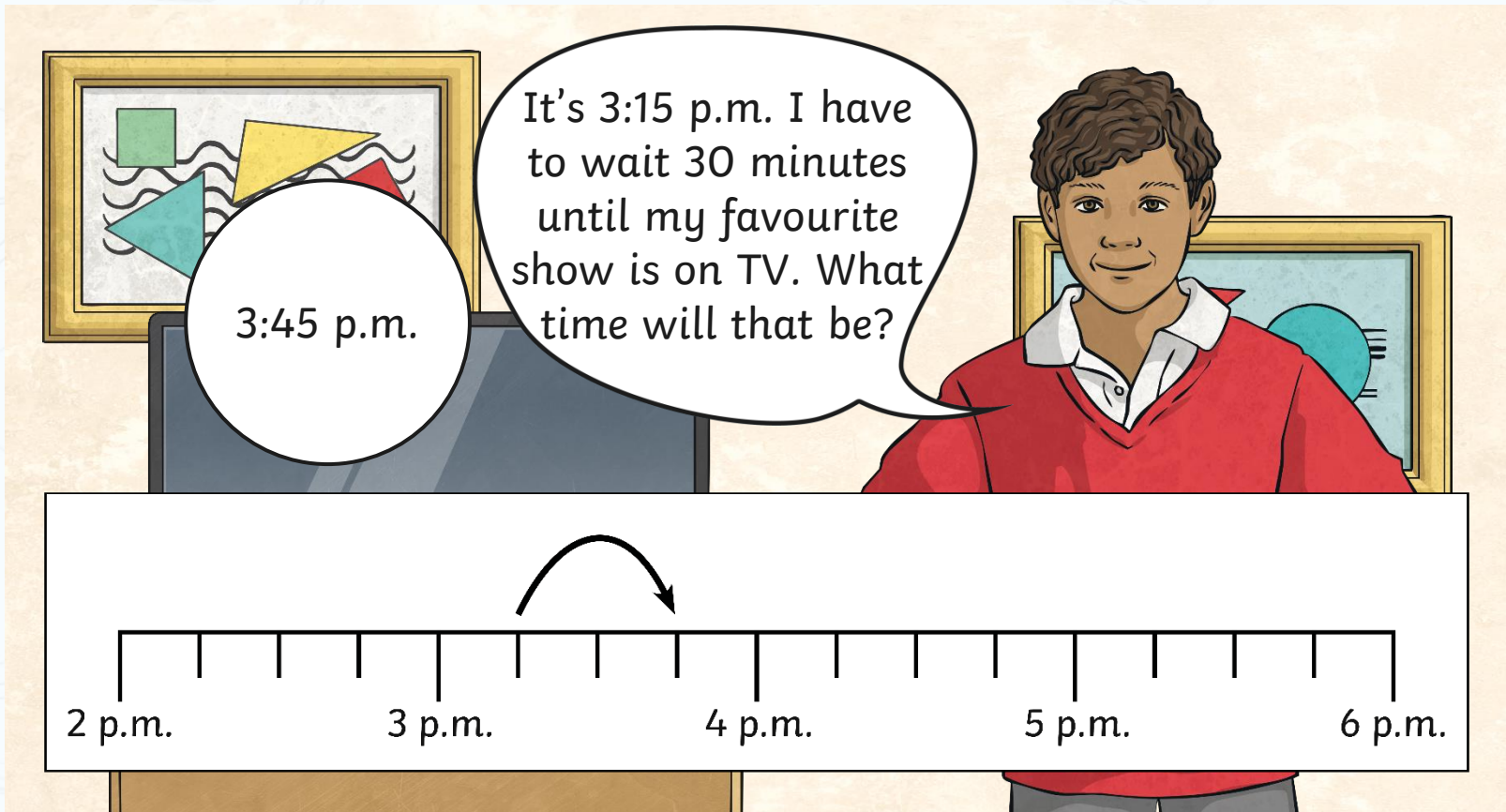
4:45 p.m.

2 p.m. 3 p.m. 4 p.m. 5 p.m. 6 p.m.

Timelines



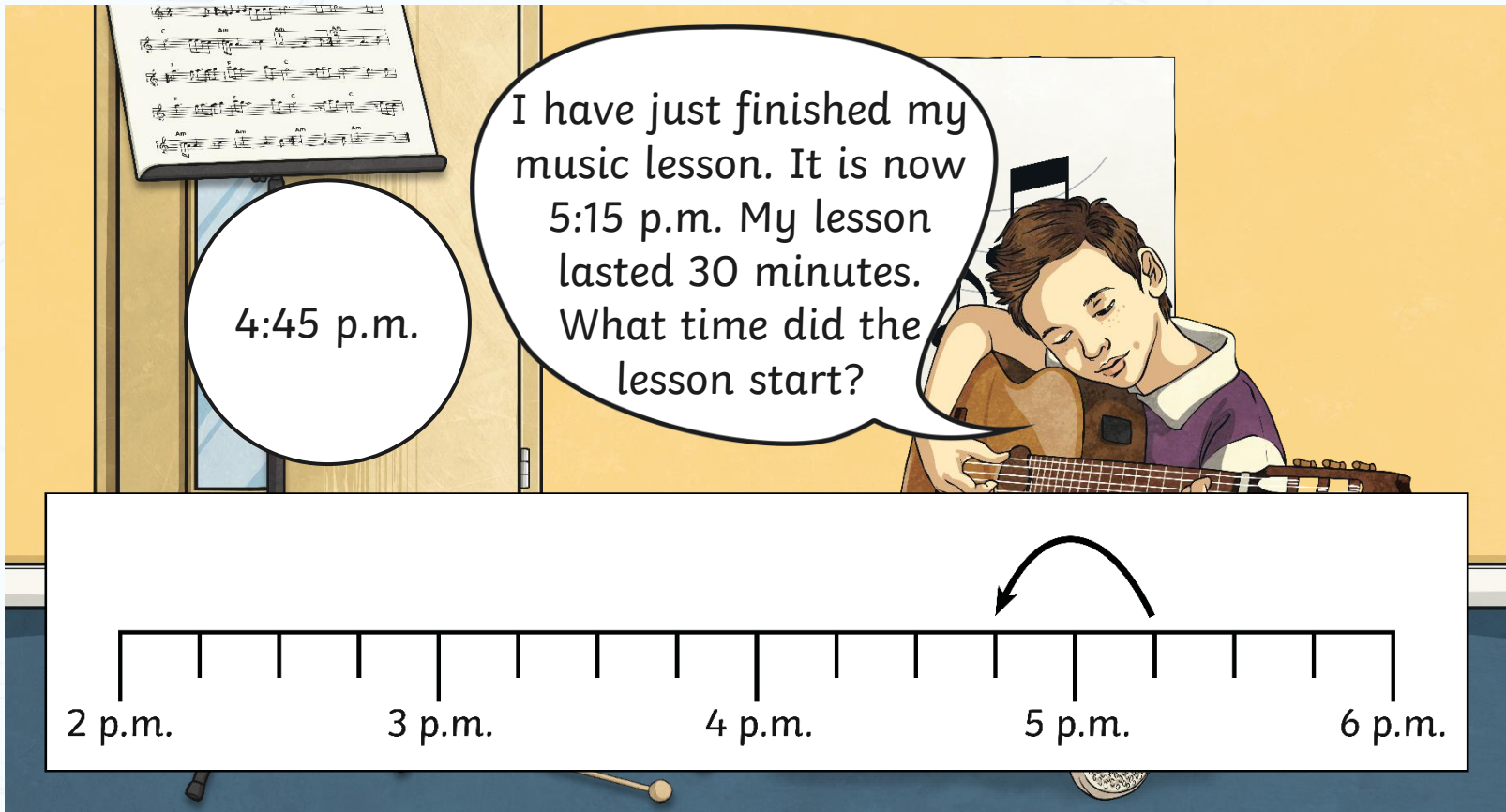
Here is a timeline from 2 p.m. to 6 p.m. in 15-minute intervals:



Timelines



Here is a timeline from 2 p.m. to 6 p.m. in 15-minute intervals:





Timelines

Here is a timeline from 2 p.m. to 6 p.m. in 15-minute intervals:

The clock in my lounge says 4:15 p.m. It is 45 minutes fast. What is the correct time?

3:30 p.m.

2 p.m. 3 p.m. 4 p.m. 5 p.m. 6 p.m.



Timelines

Here is a timeline from 10 a.m. to 1 p.m. in 10-minute intervals:

12:10 p.m.

Maths starts at 11:20 a.m. It lasts for 50 minutes. What time does it end?

10 a.m. 11 a.m. 12 p.m. 1 p.m.

BE SAFE on the INTERNET

Timelines



Here is a timeline from 10 a.m. to 1 p.m. in 10-minute intervals:

I set off to my Grandma's house at 10:30 a.m. It takes me 40 minutes to walk there. What time do I arrive?

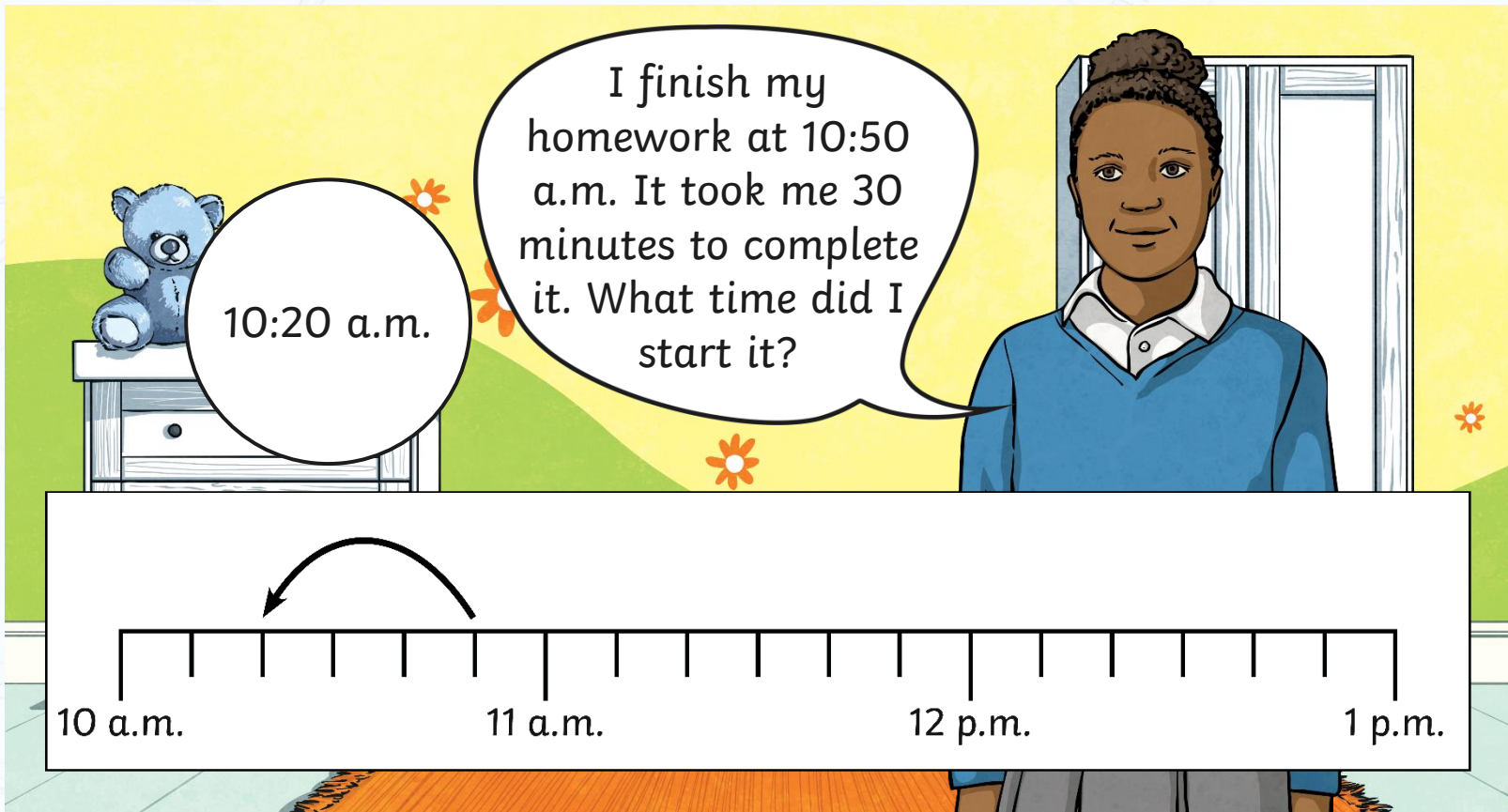
11:10 a.m.

10 a.m. 11 a.m. 12 p.m. 1 p.m.

Timelines



Here is a timeline from 10 a.m. to 1 p.m. in 10-minute intervals:



Timelines



Here is a timeline from 10 a.m. to 1 p.m. in 10-minute intervals:

I get home at 11:40 a.m. We set off from town at 10:50 a.m. How many minutes was the journey?

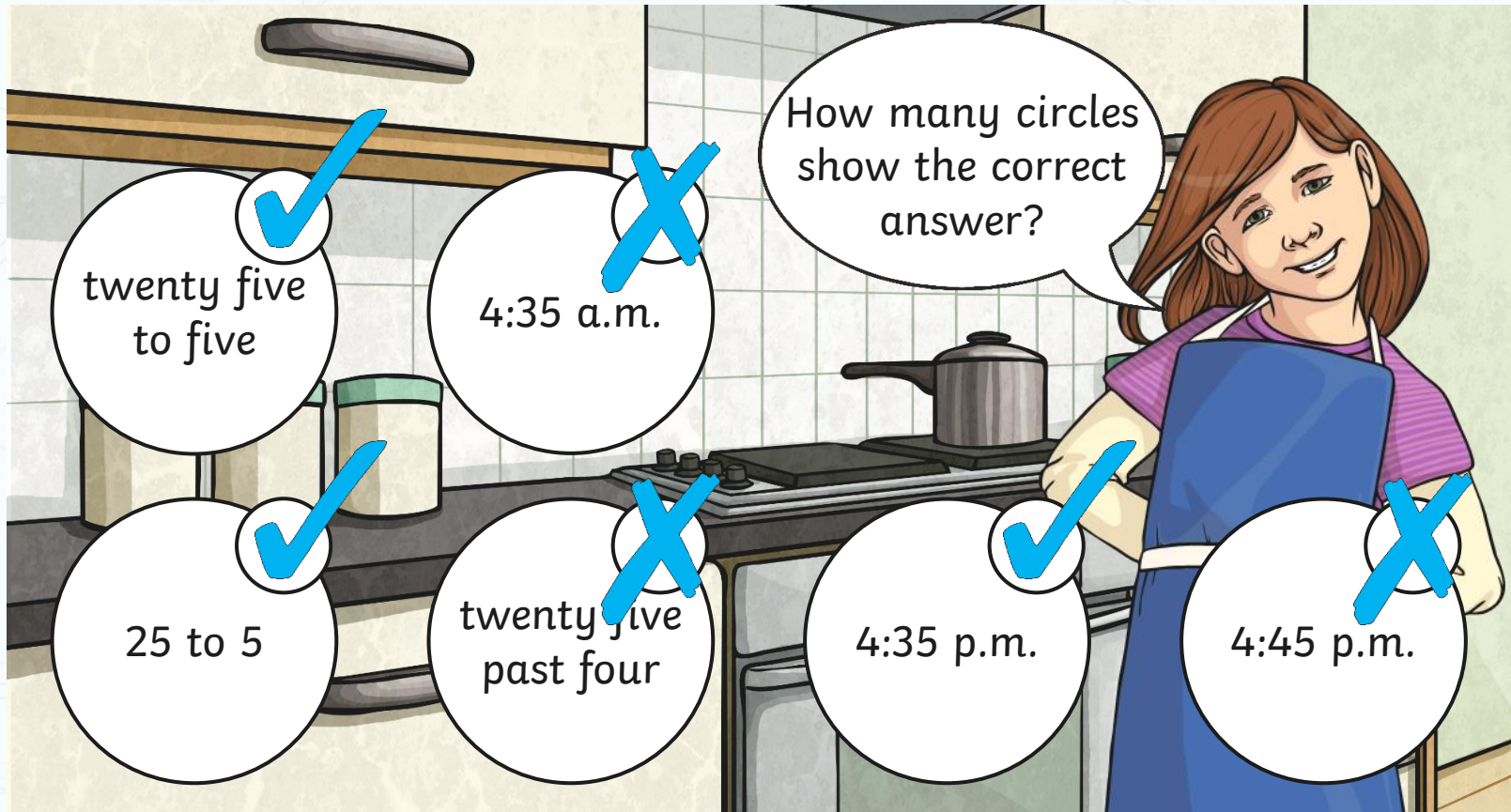
50 minutes

10 a.m. 11 a.m. 12 p.m. 1 p.m.

Word Problems



Millie started baking at 3:45 p.m. It took her 50 minutes. What time did Millie finish baking? Click the circles to reveal the answer.



Word Problems



I start running at 10:00 a.m. I run for 25 minutes, then turn round and run home. It takes me 30 minutes to run back. What time do I get home?

How many circles show the correct answer?

- 10:55 a.m. ✓
- 10:55 p.m. ✗
- five to ten ✗
- 5 to 11 ✓
- five to eleven ✓
- 10:45 a.m. ✗

Word Problems



It takes Leon 15 minutes to walk to his friend's house. He stays there for 1 and $\frac{1}{2}$ hours, then he is driven home which takes 5 minutes.

How many circles show the correct answer?

If I set off at 2:15 p.m., what time do I arrive home?

5 past 4 ✓

4:05 p.m. ✓

5 to 4 ✗

five to four ✗

4:10 p.m.

five past four ✓



Lesson Times

Here are the start and end times of some lessons.

Order the lessons from shortest to longest.

Lesson	Start time	End time
maths	10:10 a.m.	10:50 a.m.
French	11:00 a.m.	11:45 a.m.
art	1:00 p.m.	1:35 p.m.
history	1:45 p.m.	2:45 p.m.

shortest	←	→	longest
art	maths	French	history

Lesson Times



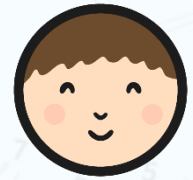
Here are the start and end times of some lessons.

Order the lessons from longest to shortest.

Lesson	Start time	End time
literacy	9:15 a.m.	10:20 a.m.
reading	11:05 a.m.	11:30 a.m.
PE	1:10 p.m.	1:55 p.m.
geography	2:20 p.m.	3:10 p.m.

longest	←	→	shortest
literacy	geography	PE	reading

Timed Events Problems



Use your terrific time skills to complete these activity sheets:

The image displays a collage of activity sheets for 'Timed Events Problems'. The sheets include various time-related problems and timelines. The problems are as follows:

- Sheet 1:**
 - 4) Here is a list of events. How long does each last, in minutes?
 - The True Way Home: 6 p.m. to 7 p.m.
 - Spy Sisters: 11 p.m. to 12 p.m.
 - Don't Lose the Shortbread: 7 a.m. to 8 a.m.
 - b) My favourite TV show starts at 11:40 a.m. and lasts for 30 minutes. What time does it end?
 - c) I woke up at 7 a.m. and went to school at 8 a.m. How long did it take me to get to school?
 - d) My dad came home at 7:20 p.m. and went to bed at 10:30 p.m. How long was he awake?
- Sheet 2:**
 - 1) How much time does each program last?
 - Cartoon Cape: 11 a.m. to 12 p.m.
 - Get that Dog: 11 a.m. to 12 p.m.
 - Funny Film Club: 11 a.m. to 12 p.m.
 - 2) Answer these questions.
 - a) French starts at 10:20 a.m. and lasts for 30 minutes. What time does it end?
 - b) Carla's birthday party starts at 1:45 p.m. and lasts for 1 hour. What time does it end?
- Sheet 3:**
 - 4) Here is a list of events. How long does each last, in minutes?
 - Cartoon Cape: 11 a.m. to 12 p.m.
 - Get that Dog: 11 a.m. to 12 p.m.
 - Funny Film Club: 11 a.m. to 12 p.m.
 - b) My dance class starts at 11:10 p.m. and lasts for 30 minutes. What time does it end?
 - c) I flew from London to Paris at 11:10 p.m. and arrived at 11:30 p.m. How long did the flight take?
 - d) My train journey from London to Paris takes 3 hours. I left London at 3 p.m. What time did I arrive in Paris?
- Sheet 4:**
 - 4) Here is a list of events. How long does each last, in minutes?
 - Maths: 11 a.m. to 12 p.m.
 - Literacy: 10 a.m. to 11 a.m.
 - PE: 5 p.m. to 6 p.m.
 - b) Maths finished at 11 a.m. and lasted for 30 minutes. What time did it start?
 - c) I got off the bus at 4:45 p.m. and it took me 15 minutes to get home. What time did I get on the bus?
 - d) My favourite TV show starts at 7:30 p.m. and lasts for 30 minutes. What time does it end?
- Sheet 5: Timed Events Problems**

I can solve problems about the duration of events.

 - How many hours pass between the following times?
 - a) 2:00 p.m. to 4:00 p.m.
 - b) 3:00 p.m. to 6:00 p.m.
 - c) 10:30 a.m. to 1:30 p.m.
 - d) 3:30 p.m. to 10:30 p.m.
 - e) 2:30 p.m. to 11:30 p.m.
 - f) 9:30 p.m. to 1:30 a.m. (the next day)
 - Answer these questions. Use the timeline to help you.
 - a) At 3:15 p.m. I leave school. It takes me 30 minutes to walk home. What time do I arrive home?

Timeline: 2 p.m. to 6 p.m.

Film Times



Karen is going to the cinema. She has a choice of 3 films, The Toy Show, The Big Bad Wolf and Funfair Fun.

Here are the start and end times.

How long does each film last?

	Start	End	Length
The Toy Show	2:15 p.m.	3:30 p.m.	1 hour 15 minutes
The Big Bad Wolf	2:10 p.m.	3:40 p.m.	1 hour 30 minutes
Funfair Fun	2:20 p.m.	4:10 p.m.	1 hour 50 minutes

Film Times



Karen wants to watch The Big Bad Wolf, then she wants to have something to eat, which will take 30 minutes.

What time should I tell my mum to pick me up?

4:10 p.m.

	Start	End	Length
The Toy Show	2:15 p.m.	3:30 p.m.	1 hour 15 minutes
The Big Bad Wolf	2:10 p.m.	3:40 p.m.	1 hour 30 minutes
Funfair Fun	2:20 p.m.	4:10 p.m.	1 hour 50 minutes

Film Times



Buses to the cinema leave town at 1:10 p.m., 1:30 p.m. and 1:50 p.m.
The journey lasts 25 minutes, then it is a 5-minute walk.

1:10 p.m. and
1:30 p.m.

If I want to see The Toy Show, which of the buses can I catch to make sure I don't miss the start of the film?

	Start	End	Length
The Toy Show	2:15 p.m.	3:30 p.m.	1 hour 15 minutes
The Big Bad Wolf	2:10 p.m.	3:40 p.m.	1 hour 30 minutes
Funfair Fun	2:20 p.m.	4:10 p.m.	1 hour 50 minutes

Film Times



Karen misses the first 15 minutes of the Funfair Fun film.
How much of the film is left?

1 hour 35
minutes or
95 minutes

	Start	End	Length
The Toy Show	2:15 p.m.	3:30 p.m.	1 hour 15 minutes
The Big Bad Wolf	2:10 p.m.	3:40 p.m.	1 hour 30 minutes
Funfair Fun	2:20 p.m.	4:10 p.m.	1 hour 50 minutes

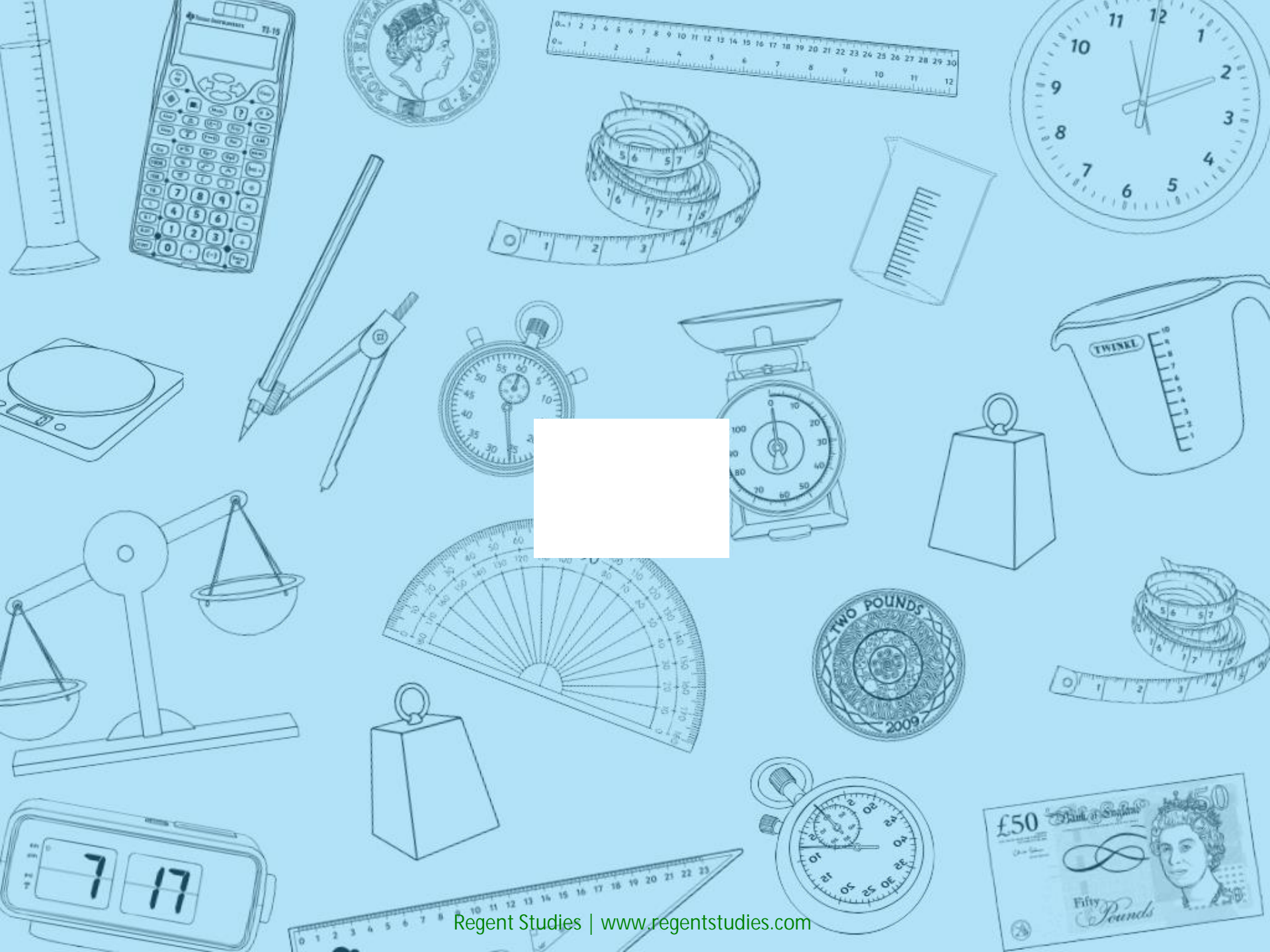
Aim



- I can solve problems about the duration of events.

Success Criteria

- I can calculate the amount of time that passes from one time to another.
- I can compare the length of timed events.
- I can order timed events.



Measurement | Timed Events Problems

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