



1) There are two statements for each clock.

11:10 a.m.	✓
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half past 8	✓
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quarter to 6	
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6:15 p.m.	✓
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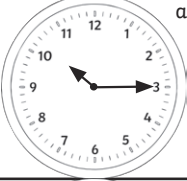
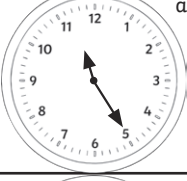

8:30 a.m.	✓
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ten past 11	✓
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10 minutes to 11	
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15 minutes past 6	✓
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2) a)

Activity	Analogue Time	12-Hour Digital Time
breakfast	 a.m.	<b>8:45 a.m.</b>
catch bus to the beach	 a.m.	<b>10:15 a.m.</b>
windsurfing lesson	 a.m.	<b>11:25 a.m.</b>
lunch	 p.m.	<b>12:30 p.m.</b>

b) **10:30 a.m.**

3) Correct order is:

**4:20 a.m., 9:45 a.m., 2:50 p.m., 8:35 p.m., 11:45 p.m.**



- 1) "It is eleven-fifteen o'clock." – This is incorrect as the time is actually eleven-fifteen a.m. O'clock is used to show when we have whole hours, but not minutes that are 'to' or 'past' the hour, e.g. 11 o'clock.

"It is quarter to 11." – This is incorrect as it is actually quarter past 11.

"The time is 3:56." – This is incorrect as it is actually 11:15 a.m. Charlotte has mixed up the minute hand and the hour hand to give the time 3:56 a.m.

- 2) Sana is correct. When a clock is slow, it means that the real time is in advance of the time shown on the clock. This means that you need to count forward 8 minutes from the time shown in order to find the correct time.
- 3) Amrit is incorrect. We know that it must be a time with 55 minutes past the hour/5 minutes to the next hour. We also know that the time must be one of the hours that is hidden on the clock, e.g. 6:55 p.m.

Maya is incorrect. If the time was 9:55 p.m., you would be able to see the hour hand as it would be close to the 10 on the clock.

Zac is correct. If the time was 3:55 p.m., the hour hand would be close to the 4 on the clock, and we would not be able to see it as it would be covered up. The minute hand would be visible and pointing at the number 11.



- 1) a) I am 9:15 p.m.  
b) I am 7:40 a.m.

- 2) a) Answers will vary. Accept any time from 3:16 p.m. to 8:44 p.m.  
b) 3:16 p.m. The hour hand needs to just be past 3 for it to be hidden and the minute hand will be hidden at 16 minutes past - any earlier and you will be able to see the hands.  
c) 8:44 p.m. The hour hand needs to be just before 9 to be hidden and the minute hand will need to be at 44 minutes - any later and it will be showing.

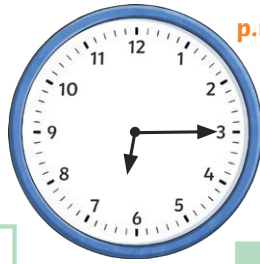
- 3) a) 7:48 p.m.  
8:05 p.m. – 17 minutes = 7:48 p.m.  
b) 2:52 p.m.  
3:15 p.m. – 17 minutes = 2:58 p.m.  
2:58 p.m. – 6 minutes = 2:52 p.m.

1) Tick every answer which correctly matches the time shown on each analogue clock.



a.m.

6:15 p.m.



p.m.

8:30 a.m.



a.m.

quarter to 6

11:10 a.m.

ten past 11

10 minutes to 11

half past 8

15 minutes past 6

2) a) Anna kept a record of what she did on one morning of her holiday. Complete the timetable by giving the correct 12-hour digital times.

Activity	Analogue Time	12-Hour Digital Time	Activity	Analogue Time	12-Hour Digital Time
breakfast	a.m.		windsurfing lesson	a.m.	
catch bus to the beach	a.m.		lunch	p.m.	

b) Anna's bus journey to the beach takes a quarter of an hour. What time does she reach the beach?

3) Use 12-hour digital time to rewrite these times in order from earliest to latest.



p.m.

8:35 p.m.



a.m.

9:45 a.m.



p.m.

earliest

:

:

:

:

:

latest



1) Each of the statements about this clock are wrong. Explain the mistake each person has made.



**Becky**

It is eleven-fifteen o'clock.



**Charlotte**

The time is 3:56 a.m.



**George**

It is quarter to 11.



a.m.

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2) This clock is running 8 minutes slow.

**Sana:** "I think the correct time is 7:03 p.m."

**Noah:** "I think the correct time is actually 6:47 p.m."

Which child do you agree with and why?



p.m.

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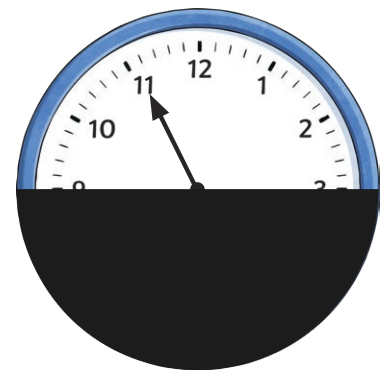
3) On this clock, the hour hand is hidden.

Zac, Maya and Amrit are thinking of times the clock could be showing. Explain if you agree or disagree with each of their statements.

**Amrit:** "I think that the clock could be showing any time, as we can't see one of the hands of the clock."

**Maya:** "I think the clock could be showing 9:55 p.m."

**Zac:** "I think that the time on this clock could be 3:55 p.m."



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1) What time am I?

a) I am a p.m. time.

My hour is an odd number.

If I was shown on an analogue clock, my minute hand would be opposite the number 9 on the clock face.

My hour is 120 minutes before 11:00 p.m.



b) I am an a.m. time.

My number of minutes is an even number.

If my time was shown on an analogue clock, my minute hand would be opposite the number 2 on the clock face.

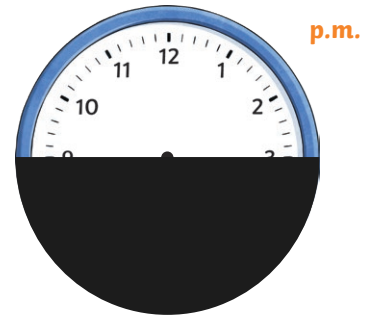
My hour is 240 minutes after 3:00 a.m.



2) Part of this clock has been covered, including the hour and minute hands.

a) Give a possible 12-hour digital time that the analogue clock could be showing.

b) What is the earliest possible time the clock could be showing? Explain how you know.



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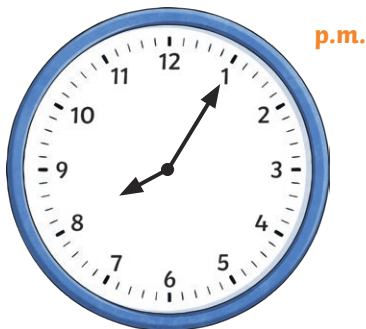
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c) What is the latest possible time the clock could be showing? Explain how you know.

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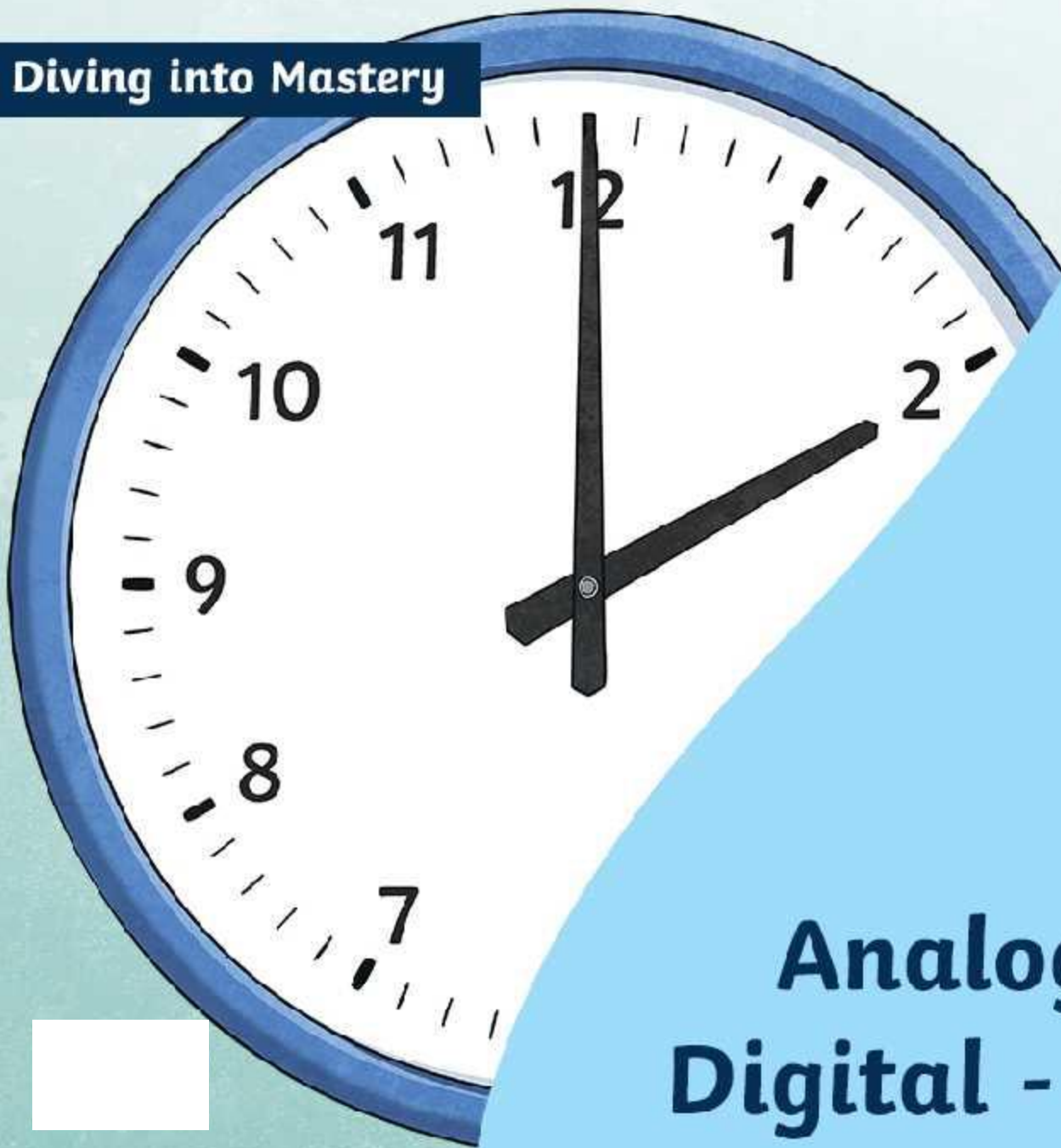
3) Keeva's watch shows this time:



a) Keeva's watch is 17 minutes fast. What is the correct 12-hour digital time? Show how you know.

b) Isaac's watch is 6 minutes slow. When Keeva's watch shows 3:15 p.m., what time will Isaac's watch show? Show how you know.

**Diving into Mastery**



**Analogue to  
Digital - 12 Hour**

# 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:



**Diving**



**Deeper**



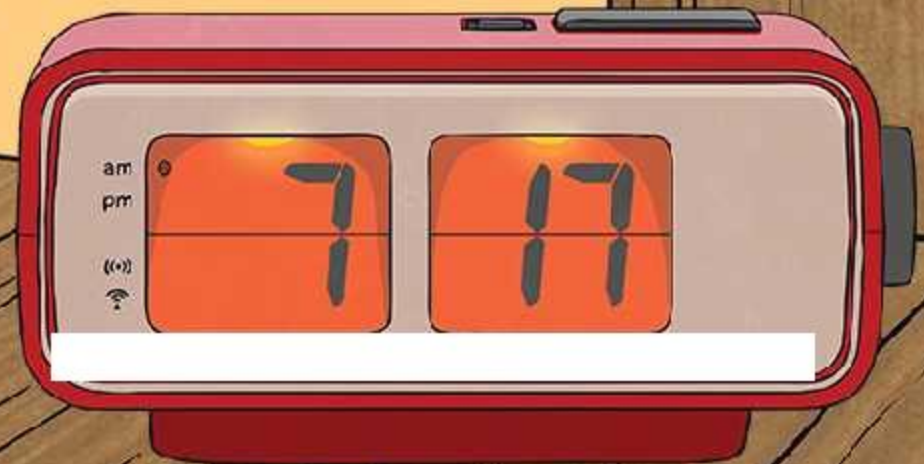
**Deepest**

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

- Read, write and convert time between analogue and digital 12- and 24-hour clocks.







Which answers correctly match the time shown on each analogue clock?

20 minutes past 7

quarter past 7

7:15 a.m.





Which answers correctly match the time shown on each analogue clock?

25 minutes past 3

quarter past 3

3:12 p.m.





Which answers correctly match the time shown on each analogue clock?

10 minutes past 9

ten past 9

9:05 p.m.

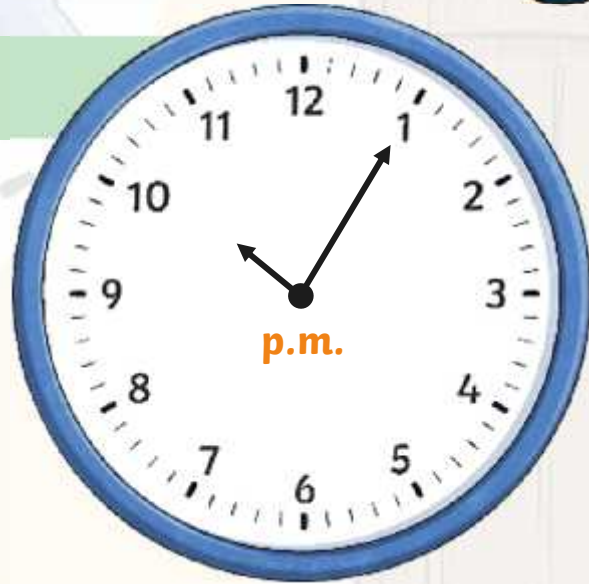




This clock is running 11 minutes fast.

Sebastian

I think the correct time is 9:54 a.m.



I think the correct time is 10:16 a.m.

Balvinder

Sebastian is correct. When a clock is fast, that means that the real time is 11 minutes before the time shown on the clock. This means that you need to count backwards 11 minutes from the time shown in order to find the correct time.  $10:05 \text{ a.m.} - 11 \text{ minutes} = 9:54 \text{ a.m.}$

Which child do you agree with and why?

## Analogue to Digital – 12 Hour

## Deeper



On this clock, the hour hand is hidden. Seren and Conor are thinking of times the clock could be showing. Explain if you agree or disagree with each of their statements.



Seren

I think that the clock could be showing 3:20 p.m.



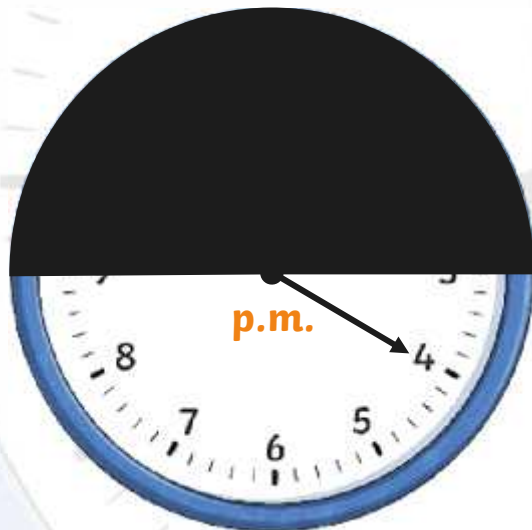
Seren is incorrect. You would be able to see the hour hand if the time was 3:20 p.m. as it would be just after the 3 on the clock.

## Analogue to Digital – 12 Hour

## Deeper

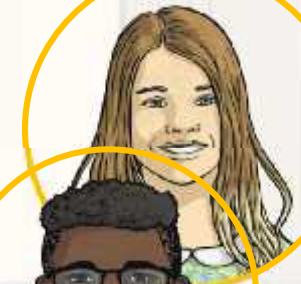


On this clock, the hour hand is hidden. Seren and Conor are thinking of times the clock could be showing. Explain if you agree or disagree with each of their statements.



Conor

I think that the clock  
could be showing  
10:20 p.m.  
I think the clock could  
be showing 3:20 p.m.



Conor is correct. The hour hand would be just past 10 on the clock if the time was 10:20 p.m. so it would be covered up. The minute hand would be visible and pointing at 4 to show that is 20 past the hour.

Analogue to Digital – 12 Hour

Deepest



What time am I?

I am a p.m. time.

My hour is an even number.

2, 4, 6, 8, 10, 12



If I was shown on an analogue clock, my minute hand would be opposite the number 12 on the clock face.

pointing at 6

My hour is 120 minutes before midnight.

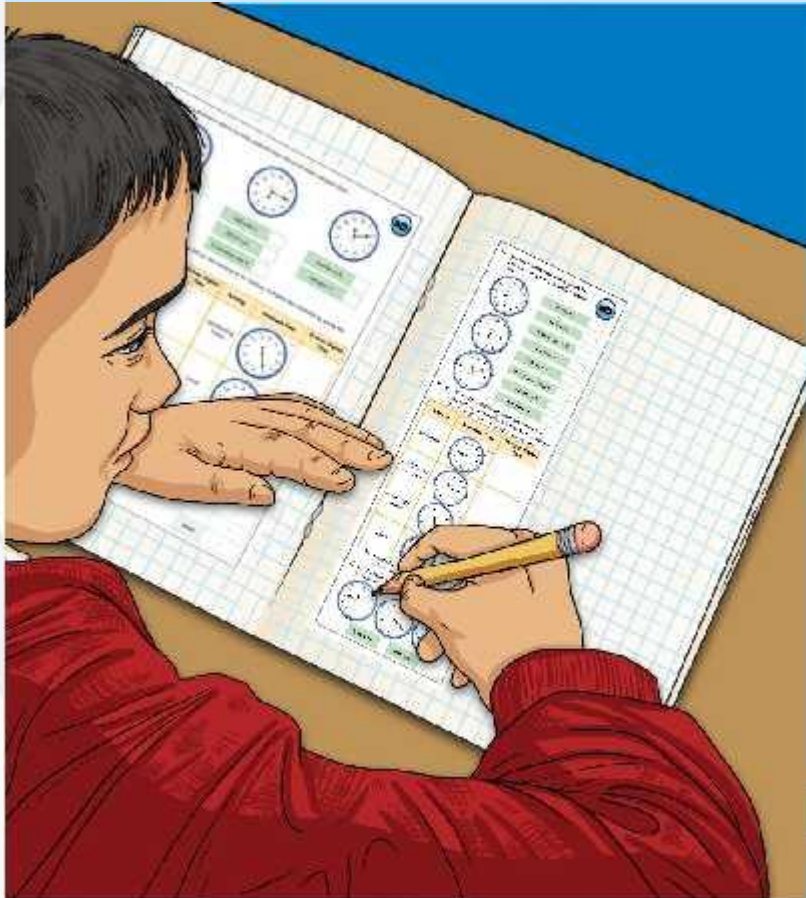
10

Can you make up your own 'What time am I?' question like this one?

**I am 10:30 p.m.**

## Analogue to Digital - 12 Hour

Dive in by completing your own activity!



31. Write the digital time for each of the clocks below. Write the time in the box.

10:10	1:30	4:45

32. Write the digital time for each of the clocks below. Write the time in the box.

11:00	12:15	2:30

33. Write the digital time for each of the clocks below. Write the time in the box.

3:45	5:00	6:15

34. Write the digital time for each of the clocks below. Write the time in the box.

7:30	8:45	9:00

35. Write the digital time for each of the clocks below. Write the time in the box.

10:30	11:45	12:00





1) Tick every answer which correctly matches the time shown on each analogue clock.



a.m. 11:10 a.m.

6:15 p.m.

10 minutes to 11



p.m. half past 8

8:30 a.m.



a.m. 15 minutes past 6

quarter to 6

ten past 11

2) a) Anna kept a record of what she did on one morning of her holiday. Complete the timetable by giving the correct 12-hour digital times.

Activity	Analogue Time	12-Hour Digital Time
breakfast	a.m.	
catch bus to the beach	a.m.	
windsurfing lesson	a.m.	
lunch	p.m.	

b) Anna's bus journey to the beach takes a quarter of an hour. What time does she reach the beach?

3) Use 12-hour digital time to rewrite these times in order from earliest to latest.



p.m.

8:35 p.m.



a.m.

9:45 a.m.



p.m.

1) Tick every answer which correctly matches the time shown on each analogue clock.



a.m. 11:10 a.m.

6:15 p.m.

10 minutes to 11



p.m. half past 8

8:30 a.m.



a.m. 15 minutes past 6

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p.m.

8:35 p.m.



a.m.

9:45 a.m.



p.m.

- 1) Each of the statements about this clock are wrong. Explain the mistake each person has made.



Becky

It is eleven-fifteen o'clock.



George

It is quarter to 11.



Charlotte

The time is 3:56 a.m.

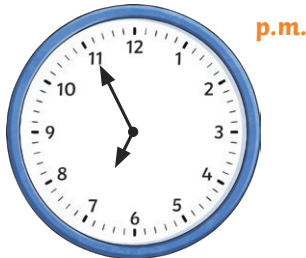


- 2) This clock is running 8 minutes slow.

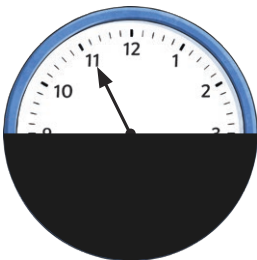
**Sana:** "I think the correct time is 7:03 p.m."

**Noah:** "I think the correct time is actually 6:47 p.m."

Which child do you agree with and why?



- 3) On this clock, the hour hand is hidden. Zac, Maya and Amrit are thinking of times the clock could be showing. Explain if you agree or disagree with each of their statements.



**Amrit:** "I think that the clock could be showing any time, as we can't see one of the hands of the clock."

**Maya:** "I think the clock could be showing 9:55 p.m."

**Zac:** "I think that the time on this clock could be 3:55 p.m."

- 1) Each of the statements about this clock are wrong. Explain the mistake each person has made.



Becky

It is eleven-fifteen o'clock.



George

It is quarter to 11.



Charlotte

The time is 3:56 a.m.

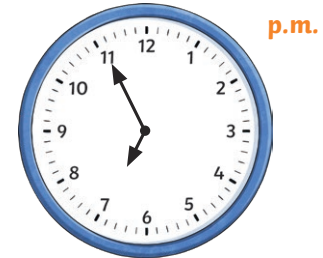


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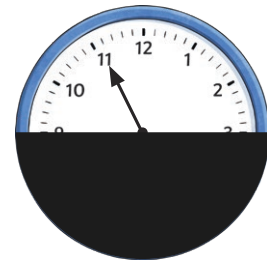
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**Maya:** "I think the clock could be showing 9:55 p.m."

**Zac:** "I think that the time on this clock could be 3:55 p.m."

1) What time am I?



a) I am a p.m. time.

My hour is an odd number.

If I was shown on an analogue clock, my minute hand would be opposite the number 9 on the clock face.

My hour is 120 minutes before 11:00 p.m.

b) I am an a.m. time.

My number of minutes is an even number.

If my time was shown on an analogue clock, my minute hand would be opposite the number 2 on the clock face.

My hour is 240 minutes after 3:00 a.m.

2) Part of this clock has been covered, including the hour and minute hands.



p.m.

- a) Give a possible 12-hour digital time that the analogue clock could be showing.
- b) What is the earliest possible time the clock could be showing? Explain how you know.
- c) What is the latest possible time the clock could be showing? Explain how you know.

3) Keeva's watch shows this time:



p.m.

- a) Keeva's watch is 17 minutes fast. What is the correct 12-hour digital time? Show how you know.
- b) Isaac's watch is 6 minutes slow. When Keeva's watch shows 3:15 p.m., what time will Isaac's watch show? Show how you know.

1) What time am I?



a) I am a p.m. time.

My hour is an odd number.

If I was shown on an analogue clock, my minute hand would be opposite the number 9 on the clock face.

My hour is 120 minutes before 11:00 p.m.

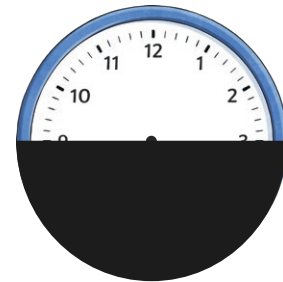
b) I am an a.m. time.

My number of minutes is an even number.

If my time was shown on an analogue clock, my minute hand would be opposite the number 2 on the clock face.

My hour is 240 minutes after 3:00 a.m.

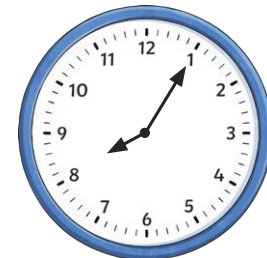
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