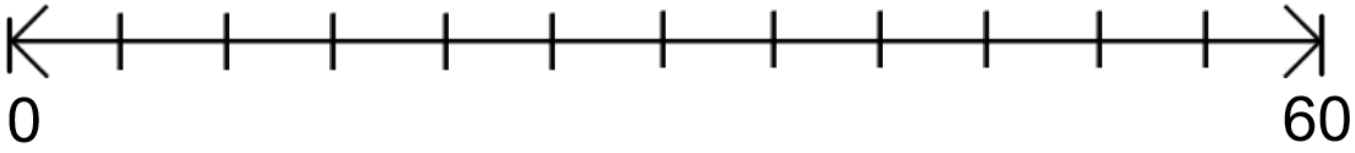
Can I convert between 12 hour analogue and digital clocks?

- Use this game to help you:

- https://www.topmarks.co.uk/time/teaching-clock

To be able to convert between 12 hour analogue and digital clocks

Starter:

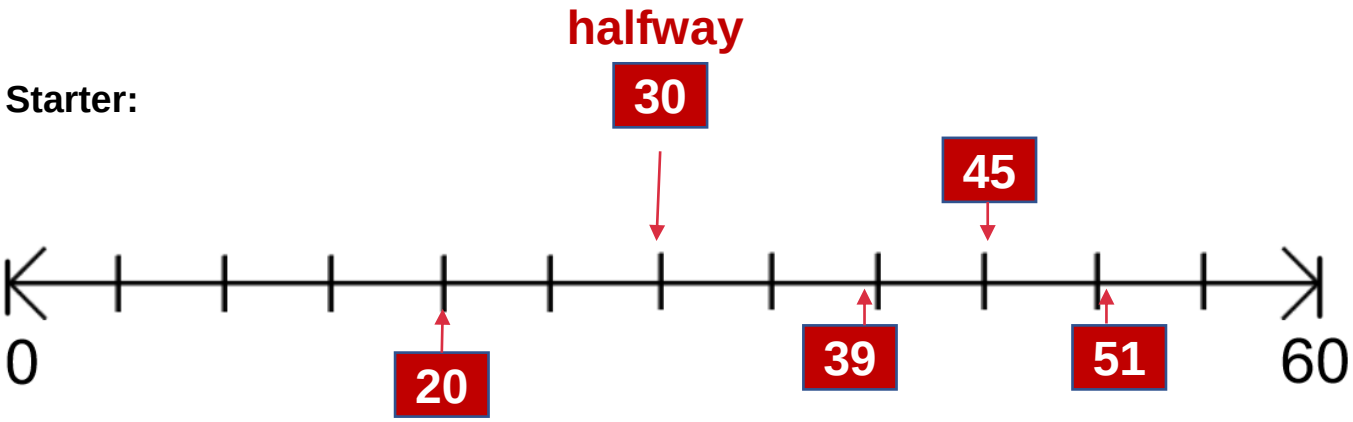


Where on the number line would these be?

- halfway
- 20
- 45
- 51
- 39

To be able to convert between 12 hour analogue and digital clocks

Starter:



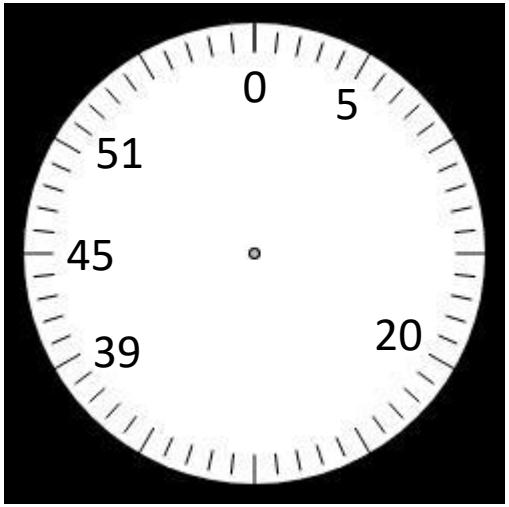
Where on the number line would these be?

- halfway
- 20
- 45
- 51
- 39

To be able to convert between 12 hour analogue and digital clocks

Talking time:

What do you notice about the outside of this clock?



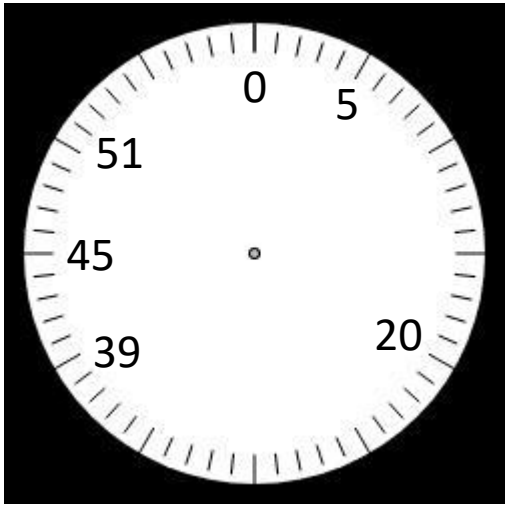
These are the minutes on a clock face.
How many minutes are there on one rotation of the minute hand?

To be able to convert between 12 hour analogue and digital clocks

Talking time:

What do you notice about the outside of this clock?

It is the same as the number line from the starter but it goes around.



These are the minutes on a clock face.
How many minutes are there on one rotation of the minute hand?

60 minutes in one rotation.

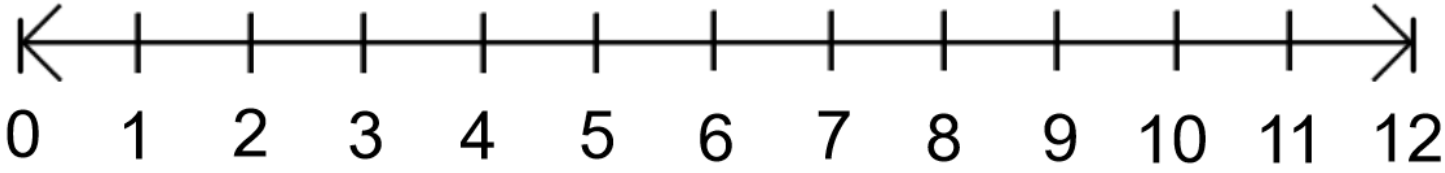
To be able to convert between 12 hour analogue and digital clocks

Talking time:

This clock has a shorter hand. This hand tells you what hour of the day it is.

The hours in the day go from 0 – 12 once in the morning and once in the afternoon.

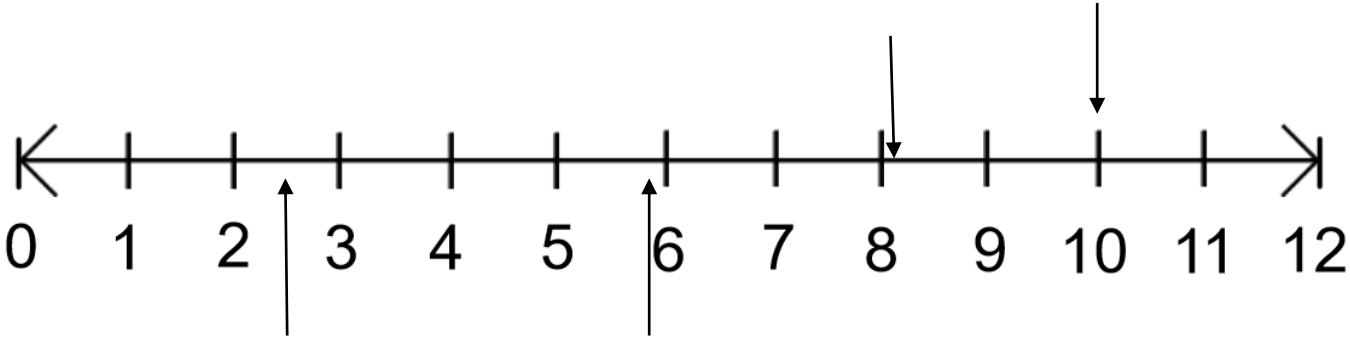
At the moment the clock shows 12 o’clock which is midday (lunchtime) or midnight (middle of the night).



To be able to convert between 12 hour analogue and digital clocks

Talking time:

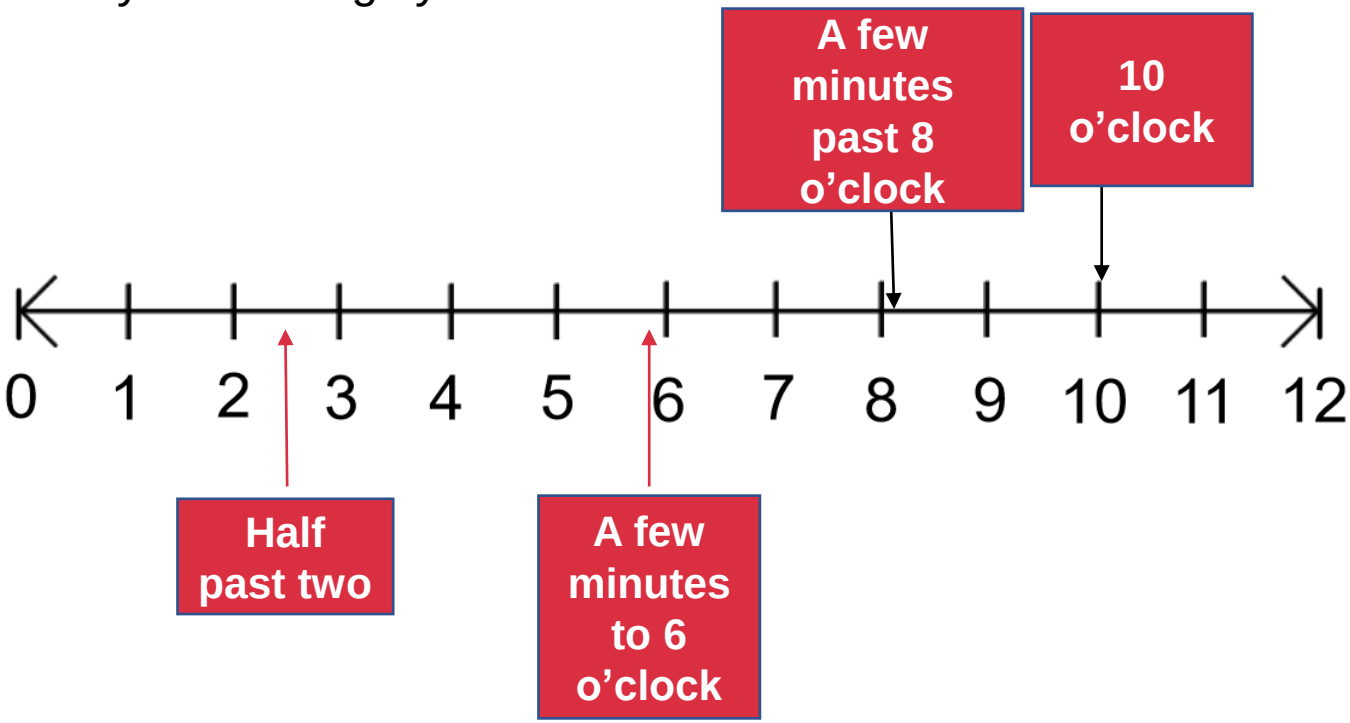
Can you tell roughly what time it is from where the arrow is on the number line?



To be able to convert between 12 hour analogue and digital clocks

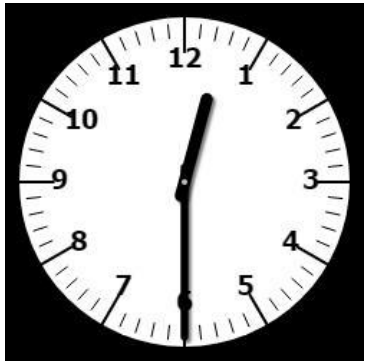
Talking time:

Can you tell roughly what time it is from where the arrow is on the number line?



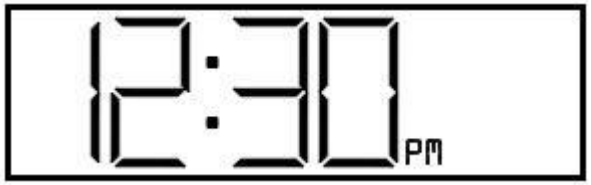
To be able to convert between 12 hour analogue and digital clocks

Talking time:



When the minute hand is half way round the clock we say it is half past the hour that the hour hand has just moved past.

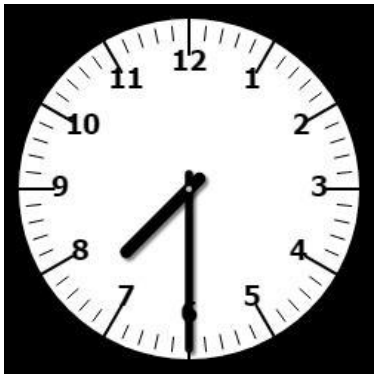
This clock shows the time 30 minutes past 12, which can also be written as half past 12, or on a digital clock would look like this:



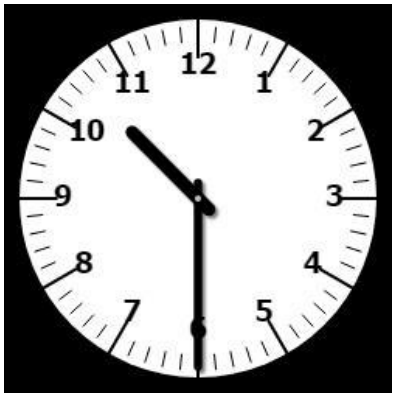
To be able to convert between 12 hour analogue and digital clocks

Activity 1:

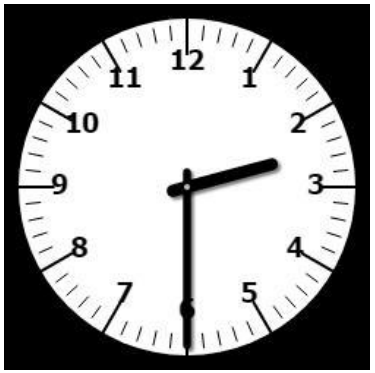
Write the times these clocks show in three different ways.

a. 

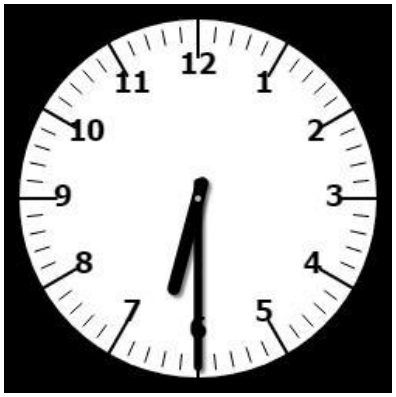
evening

b. 

morning

c. 

morning

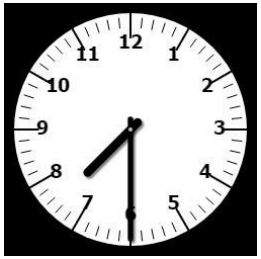
d. 

evening

To be able to convert between 12 hour analogue and digital clocks

Activity 1:

a.

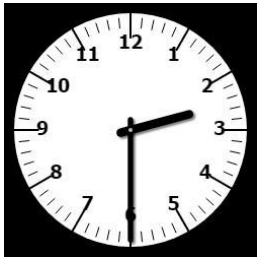


30 minutes past 7 o’clock
half past 7
07:30pm

b.

30 minutes past 10 o’clock
half past 10
10:30am

c.



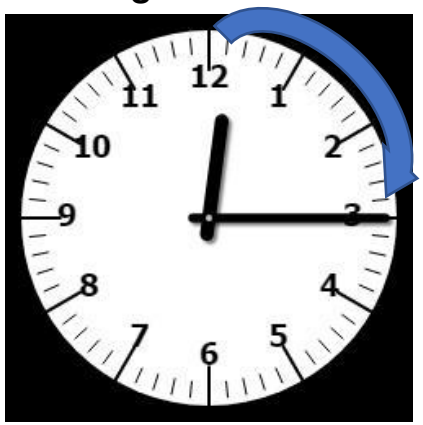
30 minutes past 2 o’clock
half past 2
02:30am

d.

30 minutes past 6 o’clock
half past 6
06:30pm

To be able to convert between 12 hour analogue and digital clocks

Talking time:



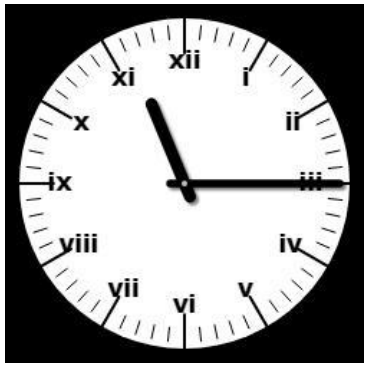
When the minute hand has travelled from the 12 to the 3, it has moved 15 minutes; this is a quarter of the clock. 15 is ¼ of 60.

We can say:
15 minutes past 12
Quarter past 12
12:15

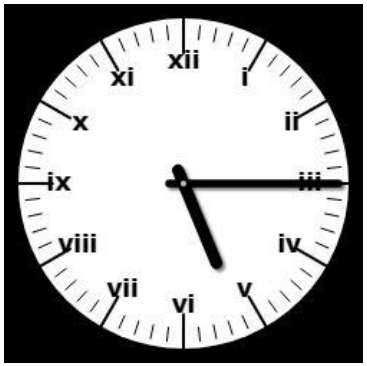
To be able to convert between 12 hour analogue and digital clocks

Activity 2:

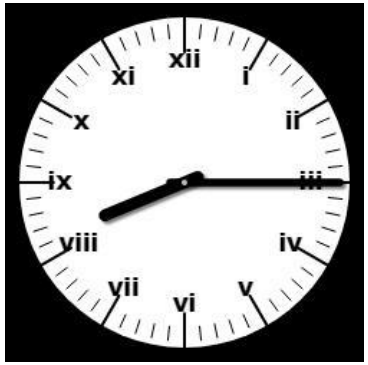
Write the times shown on each of these clocks in three different ways.

a. 

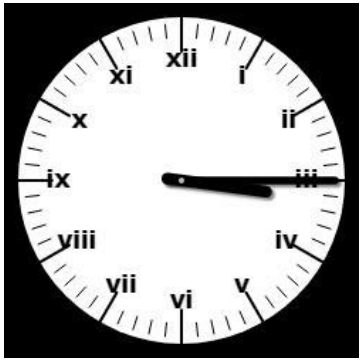
Morning

b. 

Evening

c. 

Evening

d. 

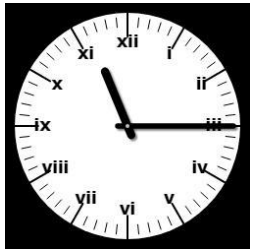
morning

For each clock above, how many minutes is it to the next hour? How do you know?

To be able to convert between 12 hour analogue and digital clocks

Activity 2:

a.



15 minutes past 11
quarter past 11
11:15am

b.

15 minutes past 5
quarter past 5
05:15pm

c.

15 minutes past 8
quarter past 8
08:15pm

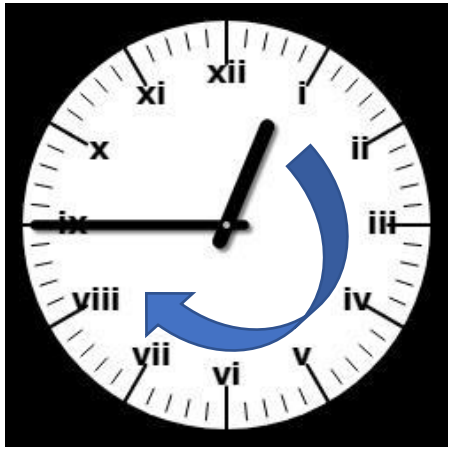
d.

15 minutes past 3
Quarter past 3
03:15am

For each clock above, how many minutes is it to the next hour? How do you know? ***45 minutes because 15 + 45 = 60***

To be able to convert between 12 hour analogue and digital clocks

Talking time:



When the minute hand has travelled from the 12 to the 9, it has moved 45 minutes; this is three quarters of the clock. 45 is ¾ of 60.

We can say:
45 minutes past 12
15 minutes to 1
Quarter **to** 1
12:45 noon or 12:45 midnight (depending)

To be able to convert between 12 hour analogue and digital clocks

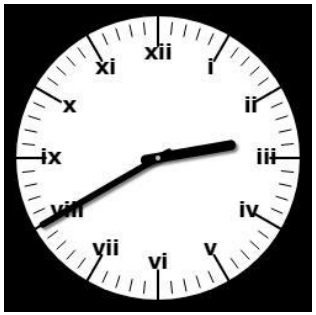
Activity 3:

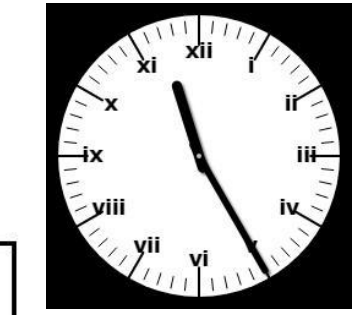
Match the written times to the analogue and/or digital clocks.

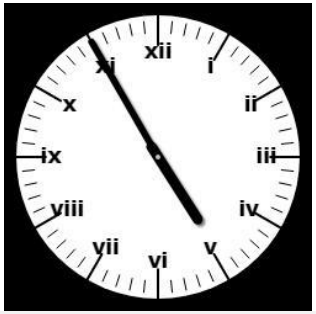
40 minutes past 2

25 minutes past 12

5 minutes to 5







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Activity 3:

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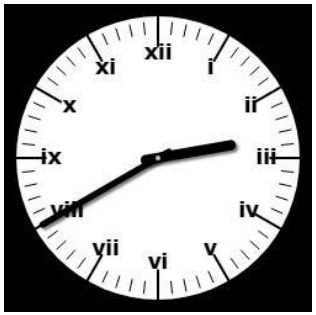
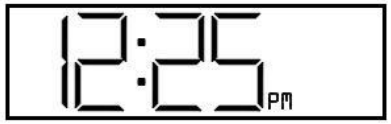
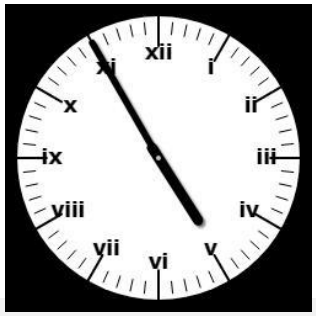
40 minutes past 2

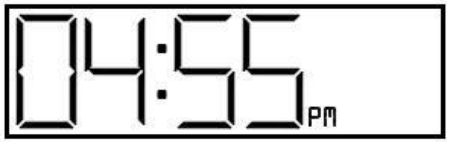


25 minutes past 12



5 minutes to 5



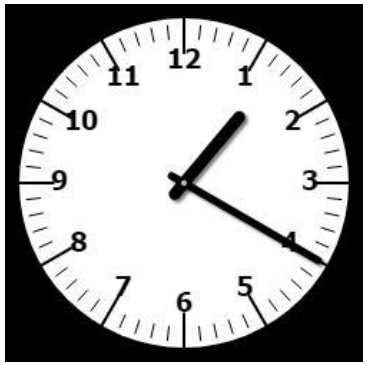


To be able to convert between 12 hour analogue and digital clocks

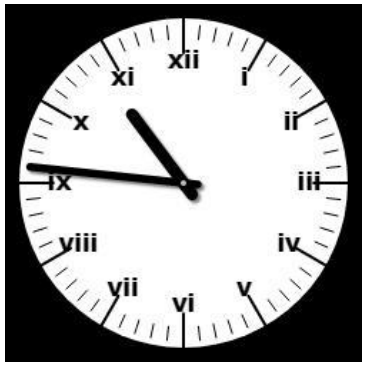
Activity 4:

Write the times shown on the analogue clocks in digital format.

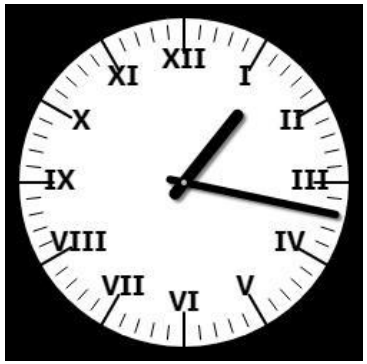
a.



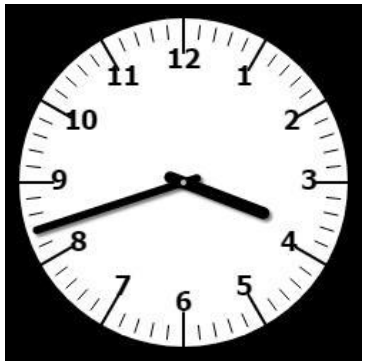
b.



c.



d.



To be able to convert between 12 hour analogue and digital clocks

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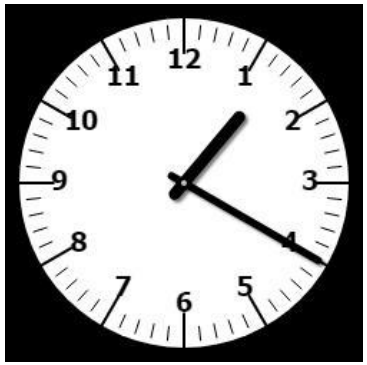
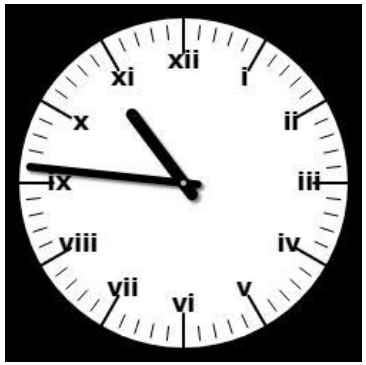


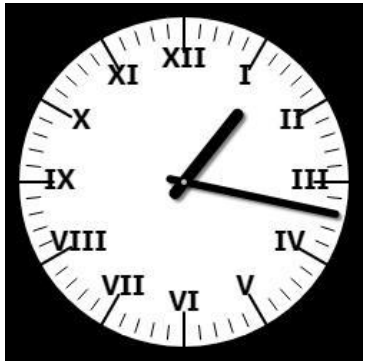
01:20

b.



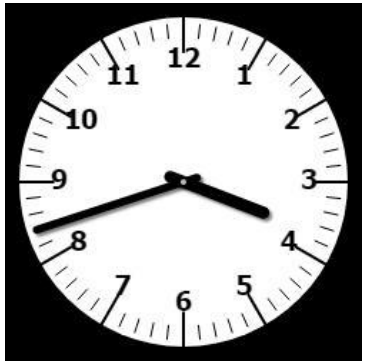
10:46

c.



01:17

d.



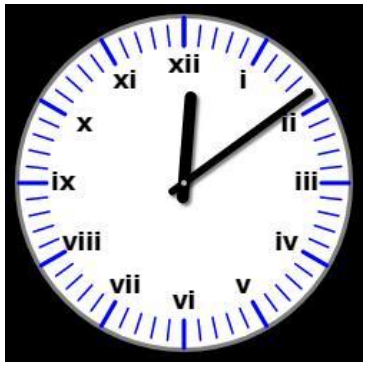
03:42

To be able to convert between 12 hour analogue and digital clocks

Activity 4:

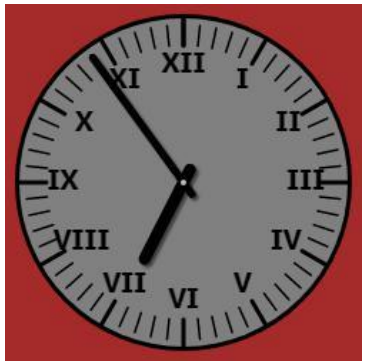
Write the times shown on the analogue clocks in digital format.

a.



b.

c.



d.

To be able to convert between 12 hour analogue and digital clocks

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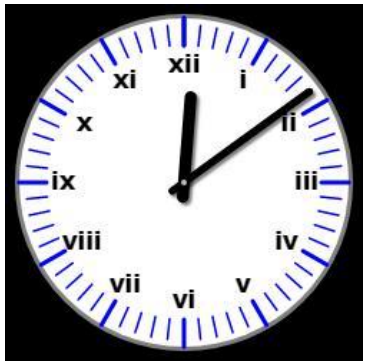
Write the times shown on the analogue clocks in digital format.

a.

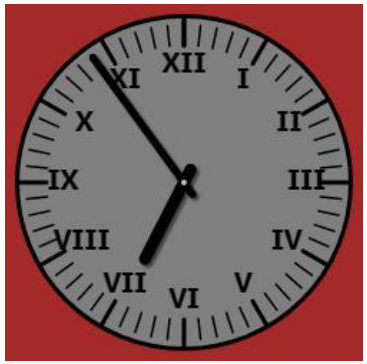


12:09

b.

07:28

c.



06:54

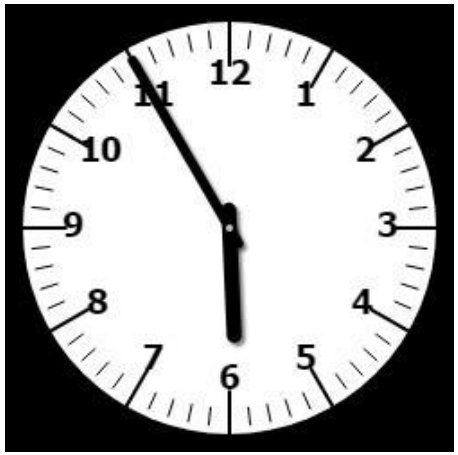
d.

09:37

To be able to convert between 12 hour analogue and digital clocks

Talking time:

Elliot leaves school at the time shown.
He arrives home 37 minutes later.
What time did Elliot arrive home
in the evening?
Write your answer as a digital clock time.



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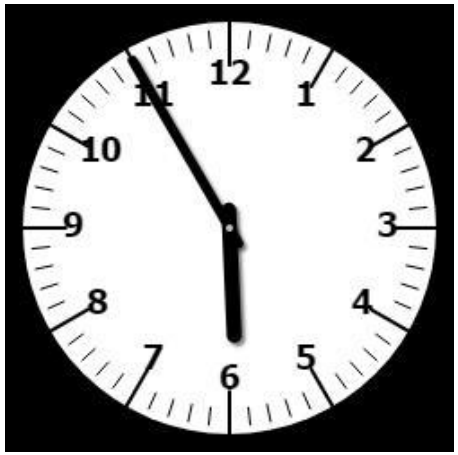


06:32pm

If you use the clock and count round in 5s up to 35 minutes you land on 06:30 then and extra 2 minutes to add on makes 06:32pm.

To be able to convert between 12 hour analogue and digital clocks

Activity 5:

Kalvin says,

It takes me 46 minutes to walk to school. School starts at 08:55am. If I leave home at the time shown, will I be late for school?

If Kalvin is not on time, how early or late is he?

To be able to convert between 12 hour analogue and digital clocks

Activity 5:

Kalvin says,

It takes me 46 minutes to walk to school. School starts at 08:55am. If I leave home at the time shown, will I be late for school?

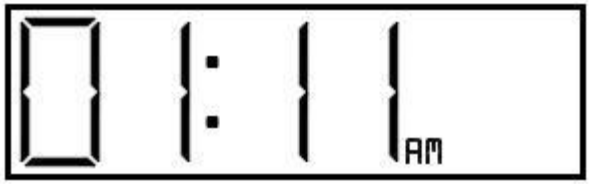
No. It is 08:05am now if you count on 46 minutes the time is 08:51am. 08:51am is earlier than 08:55am.

If Kalvin is not on time, how early or late is he? ***4 minutes early***

To be able to convert between 12 hour analogue and digital clocks

Evaluation:

Harvey converts the analogue time to digital format.
Here is his answer.

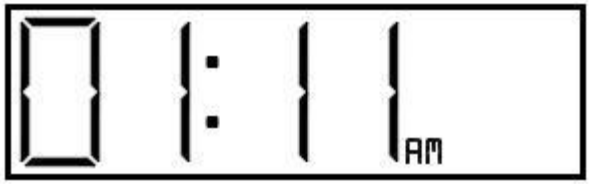


Do you agree? Explain your answer.

To be able to convert between 12 hour analogue and digital clocks

Evaluation:

Harvey converts the analogue time to digital format. Here is his answer.



Do you agree? Explain your answer.

Harvey is incorrect. He has confused the minutes and hour hands. He should have written the time as either 11:01 or 23:01.