Mathletics

Series D Student

Time

My name

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Series D – Time

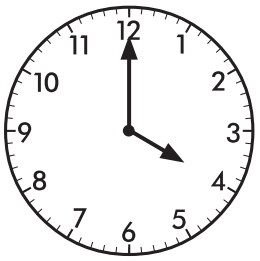
Contents

Series Author:

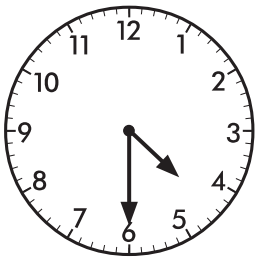
Nicola Herringer

Telling time – o'clock and half past

The minute hand is on 12 and the hour hand is on 4.



4 o'clock



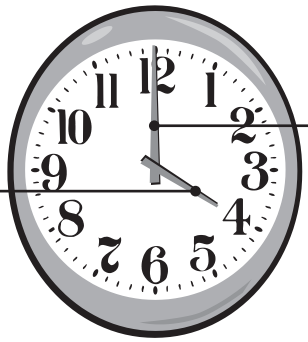
half past 4

The minute hand is on 6 and the hour hand is half way between 4 and 5.

1 **Complete these labels of the clock hands by writing these words in the correct places – *long*, *short*, *hours*, *past*, *to* and *o'clock*:**

The hour hand is _____.

It shows the _____.

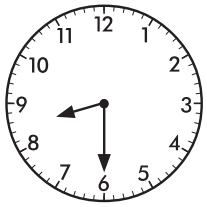


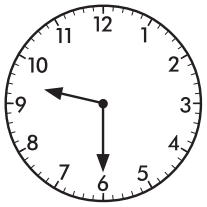
The minute hand is _____.

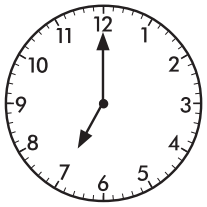
It shows how many minutes _____ or _____.

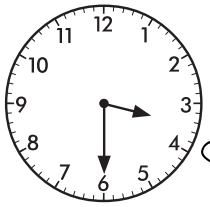
It can also show _____.

2 **Draw a line to connect each of these clocks to the matching times:**





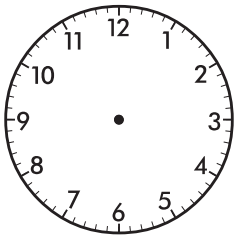




half past 3 | 7 o'clock | half past 8 | half past 9

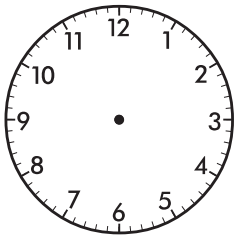
3 **Draw the hour and minute hands on each clock to show the correct time:**

a



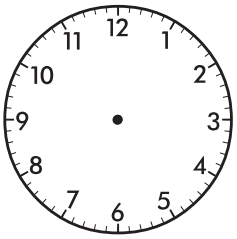
half past 10

b



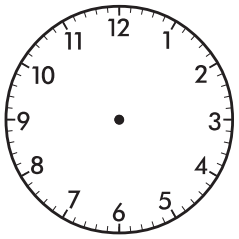
5 o'clock

c



1 o'clock

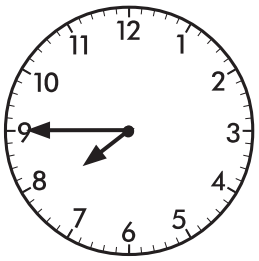
d



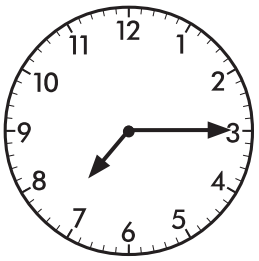
half past 2

Telling time – quarter to and quarter past

When the minute hand is on 9, it is 15 minutes to the hour or it has a quarter of the way to go before it reaches the hour.



A quarter to 8

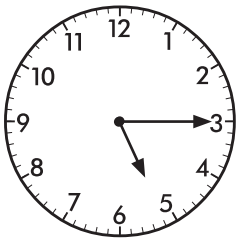


A quarter past 7

When the minute hand is on 3, it is 15 minutes past the hour or it has gone a quarter of the way around the clock face.

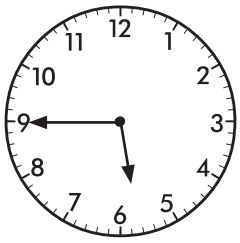
1 **Write either 'past' or 'to' in the blanks:**

a



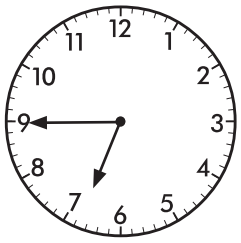
A quarter _____ 5.

b



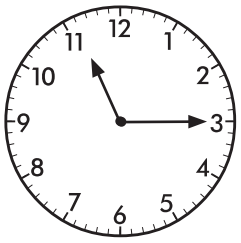
A quarter _____ 6.

c



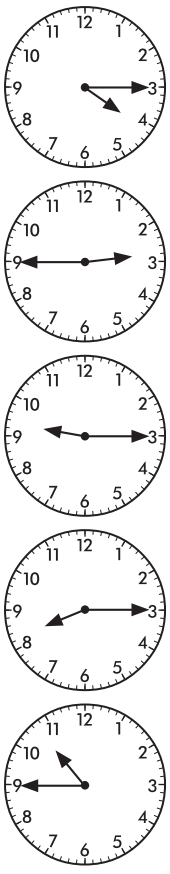
A quarter _____ 7.

d



A quarter _____ 11.

2 **Draw a line to connect each clock to its time label. Each clock has more than one label.**



15 minutes past 9

a quarter to 3

a quarter past 8

15 minutes past 4

15 minutes past 8

15 minutes to 11

a quarter past 4

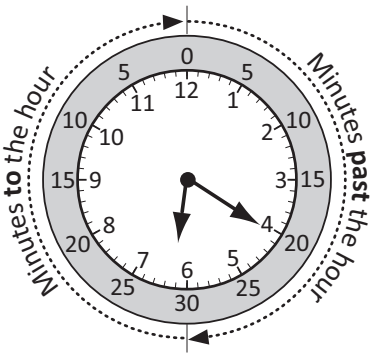
15 minutes to 3

a quarter to 11

a quarter past 9

Telling time – five minute intervals past the hour

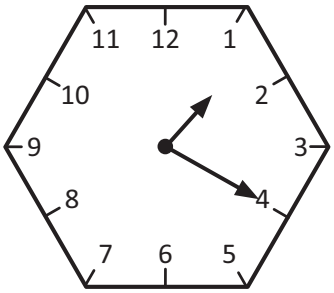
It takes 5 minutes for the minute hand to move from one number to the next. The time shown on this clock is 20 minutes past 6.



20 past 6

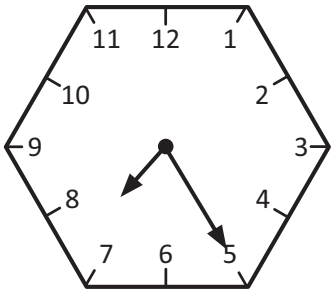
1 **Complete these labels of the clock hands:**

a



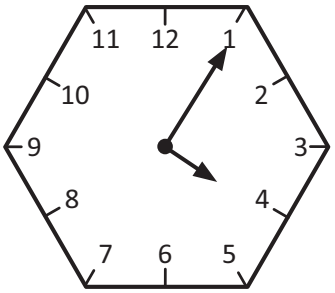
_____ past _____

b



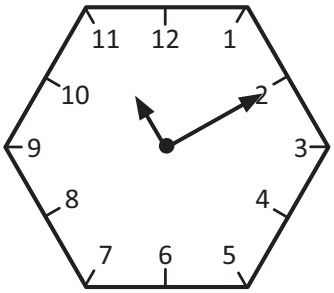
_____ past _____

c



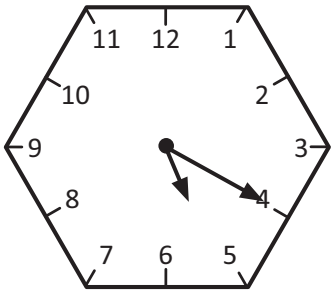
_____ past _____

d



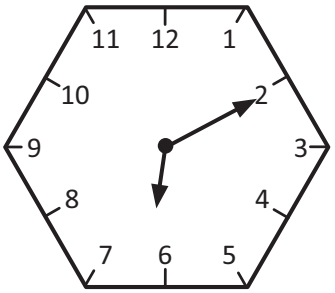
_____ past _____

e



_____ past _____

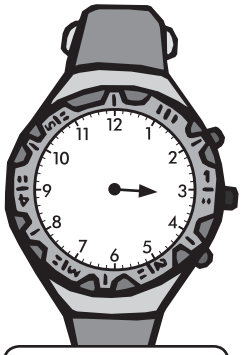
f



_____ past _____

2 **Draw the minute hand on each watch according to the label:**

a

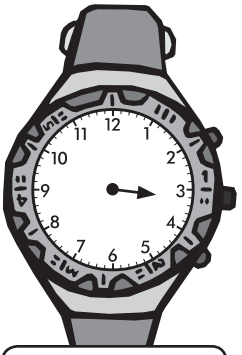


5 past 3

b

25 past 3

c

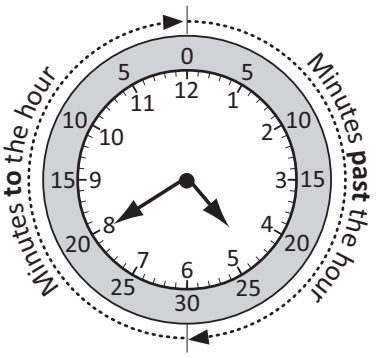


10 past 3

Telling time – five minute intervals to the hour

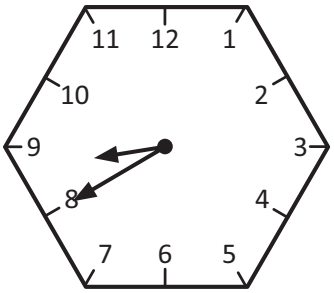
When the time is later than half past, instead of saying the number of minutes after the hour we usually say the number of minutes **before** or **to** the next hour.

20 to 5



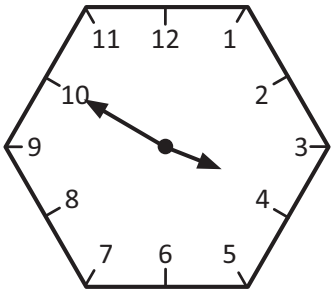
1 **Complete these labels of the clock hands:**

a



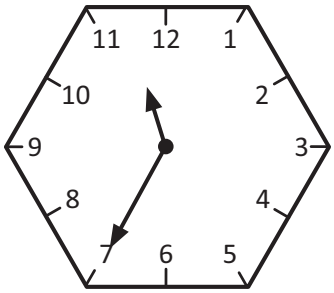
_____ to _____

b



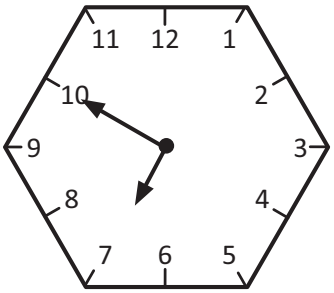
_____ to _____

c



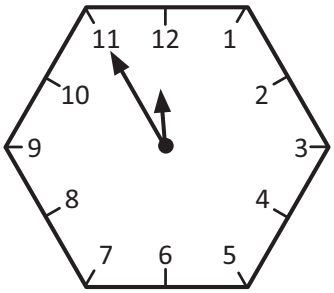
_____ to _____

d



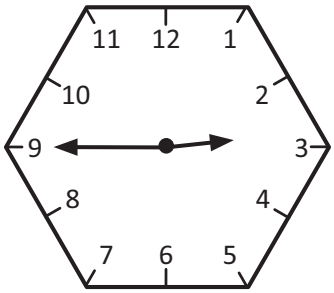
_____ to _____

e



_____ to _____

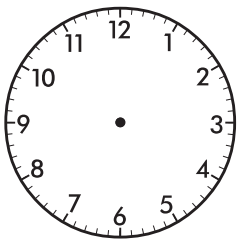
f



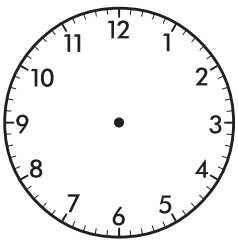
_____ to _____

2 **Draw the hands on the clocks to show these times.**

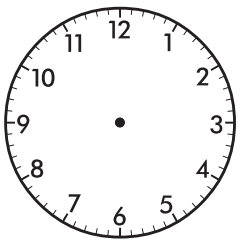
a 20 to 2



b 10 to 8



c 5 to 6



Telling time – digital

Digital time is always read as minutes past the hour. This digital time could be read as 24 minutes past 8 *or* eight twenty four. Digital clocks often display a zero when the hour is a single digit.

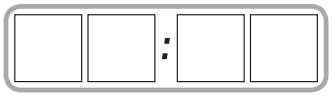
1 **Draw a line to connect each of these digital times to how they could be read:**

16 minutes past 3 | 25 minutes past 4 | 48 minutes past 9 | 23 minutes past 7

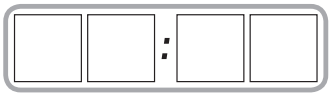
2 **Write the times on the digital clock radios. The first one has been done for you.**

a seven twenty

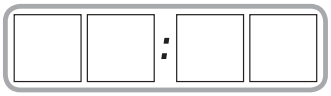
b 13 minutes past 4



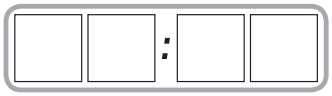
c 25 minutes past 2



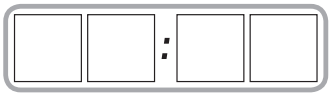
d four thirty two



e 28 minutes past 6

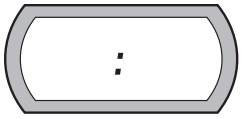


f nine fifty two

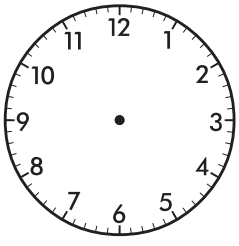


3 **Complete this row of analogue and digital clocks so each pair displays the same time:**

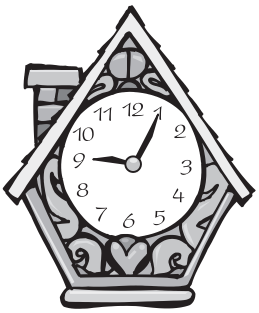
a

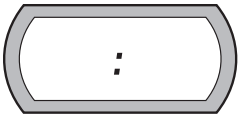


b

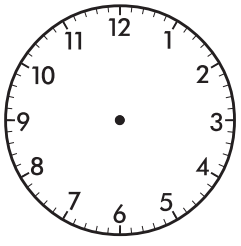


c





d



Telling time – digital

4 **When we read out digital time, we read the digits left to right. Complete the table to match how we say digital time to what it means. The first one has been done for you.**

	Digital time	How we say it	What it means
a	01:07	one oh seven	7 minutes past 1
b	03:02		
c	05:17		
d	12:15		

5 **Colour match the times to each digital clock:**

green

red

yellow

blue

purple

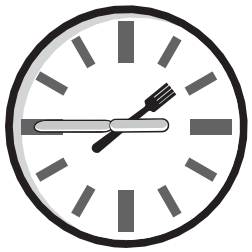
half past six

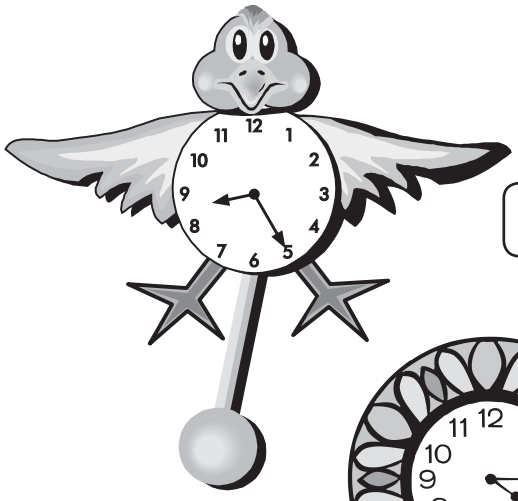
25 minutes past 8

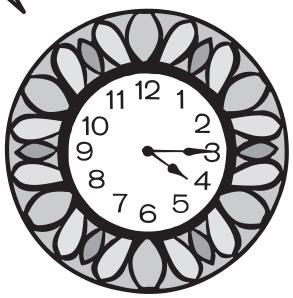
quarter past four

three oh five

one forty five





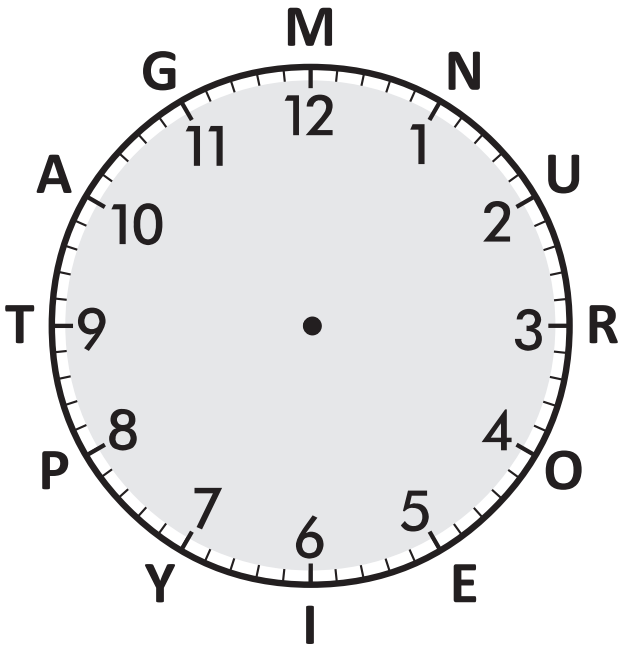


Coded clocks

apply

What to do

Solve the riddle below by finding the matching letter for each amount of minutes, *to* or *past* hours on the clock face.



Riddle: What did the sock say to the foot?

25 to	20 past	10 past		10 to	15 past	25 past
_____	_____	_____		_____	_____	_____
20 to	10 past	15 to	quarter to	30 past	five past	five to
_____	_____	_____	_____	_____	_____	_____
	o'clock	25 past		20 past	5 past	
	_____	_____		_____	_____	

Claim the times

apply

Getting ready

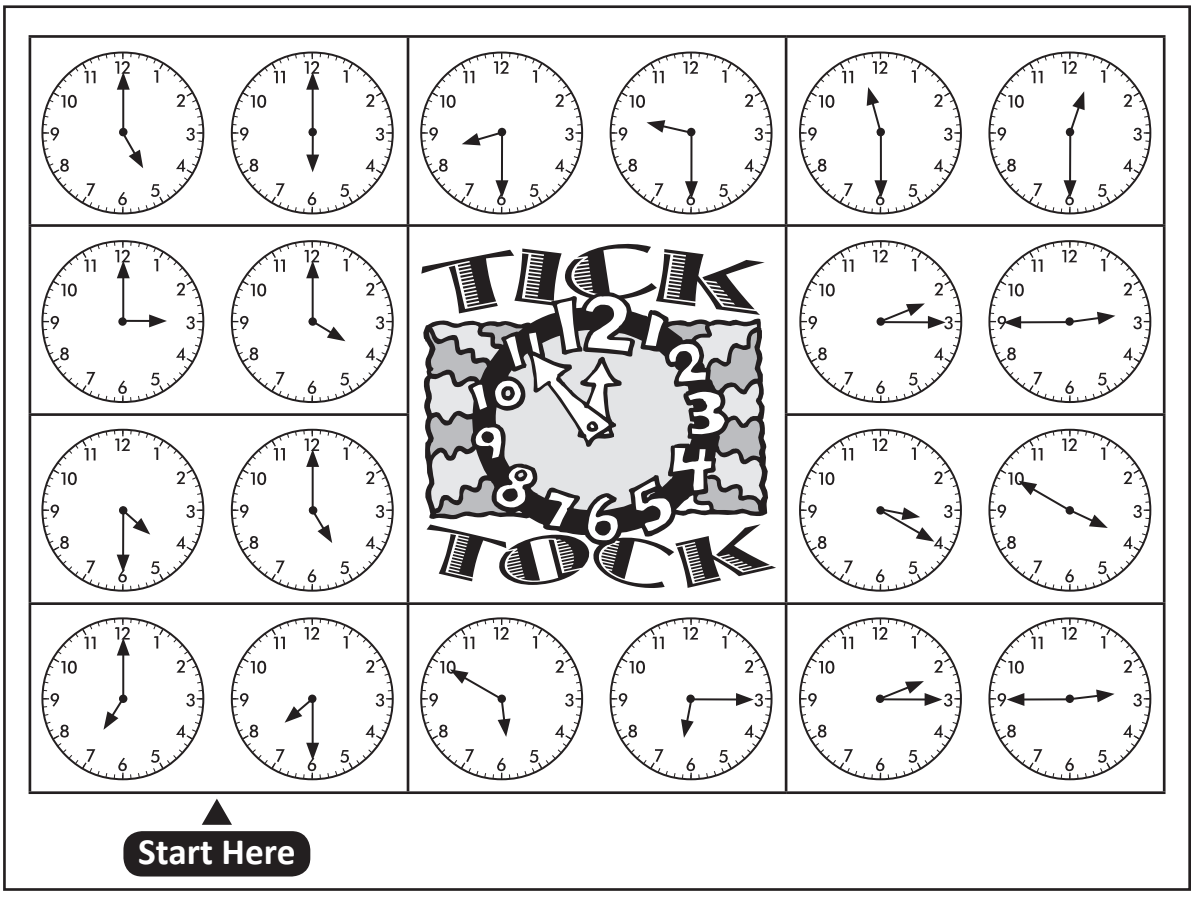
This is a game for 2 players. You will need a copy of this page, a die and 10 counters each. Choose a different counter colour for each player.

copy

What to do

Roll the die and move clockwise around the game board. You must claim a digital time that comes between the 2 clocks that you landed on. You do this by placing your counter on the digital time. Keep moving around the game board until one player has no counters left. This person is the winner.

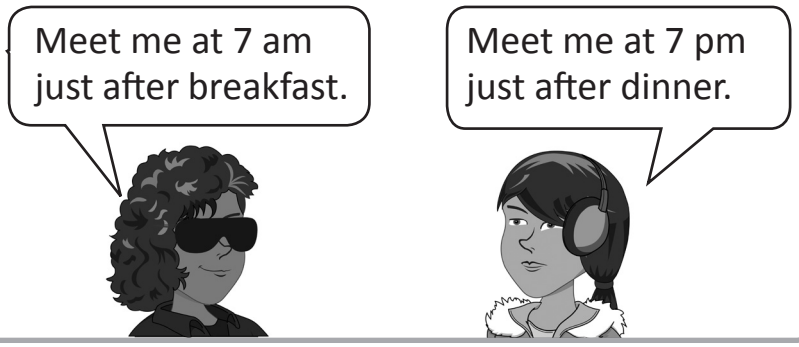
05:15	04:55	02:40	02:25	03:45	02:30	05:40
07:15	04:45	03:30	03:45	02:30	12:15	11:45
08:45	09:00	05:30	06:10	06:00	07:05	01:45



Measuring time – am and pm

am means before midday.

pm means after midday.



1 **Connect the times to either am or pm with a line:**

a	6 o'clock in the evening	•
b	6 o'clock in the morning	•
c	2 o'clock in the morning	•
d	2 o'clock in the afternoon	•
e	1 o'clock after bedtime	•
f	1 o'clock after lunch	•

• am

• pm

2 **Circle the time in the table that best matches the following:**

a	After lunch	6 am	6:30 am	2 pm
b	Before school	7:30 pm	7:30 am	2 am
c	Bedtime	7:30 am	8:30 pm	9 am
d	Dinner time	5:30 am	1:30 pm	6 pm
e	When I have my afternoon tea	4 am	4:30 pm	11 pm

3 **Add two hours to each of these digital times:**

a 9:52 am _____ **b** 3:15 pm _____

c 7:30 pm _____ **d** 6:48 am _____

e 5:15 pm _____ **f** 3:59 am _____

Measuring time – time facts

It is important to learn these time facts:

60 seconds = 1 minute

60 minutes = 1 hour

24 hours = 1 day

7 days = 1 week

1 **Use the information above to answer these:**

a hours in 1 day = _____

b hours in 2 days = _____

c minutes in 2 hours = _____

d days in 2 weeks = _____

e seconds in 1 minute = _____

f seconds in $\frac{1}{2}$ a minute = _____

2 **Estimate how many seconds it takes for each activity. Then, use a timer or a stopwatch and record how long each activity actually takes.**

	Activity	Estimated time	Actual time
a	Say the alphabet at normal speed.		
b	Write your name neatly 3 times.		
c	Do 20 star jumps.		
d	Drink a glass of water at normal speed.		
e	Roll a die 6 times and record each number.		

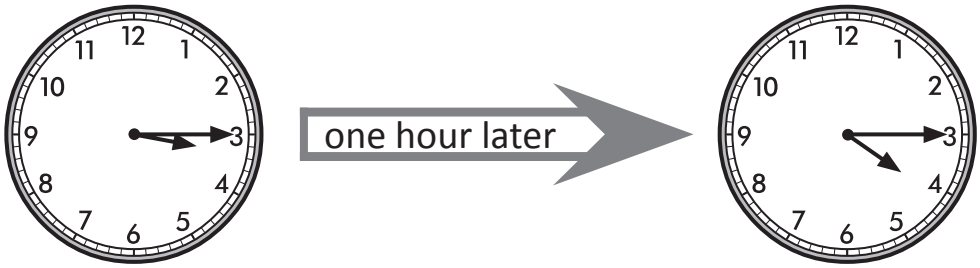
3 **Use your basic time facts to work out who took longer. Circle the correct answer:**

a Max took 75 seconds to brush his teeth.
Milly took $1\frac{1}{2}$ minutes. Max / Milly

b Charlie completed the hike after 130 minutes.
It took Claire 2 hours. Charlie / Claire

c The Darnleys went on holiday for 22 days.
The Sommers went on their holidays for 3 weeks. Darnleys / Sommers

Measuring time – time trails



1 **Show the time that is one hour later:**

a

b

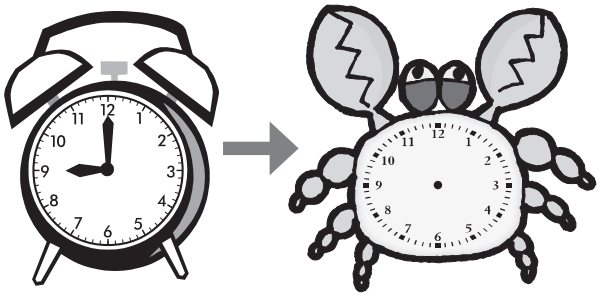
2 **Write the time that is half an hour earlier:**

a

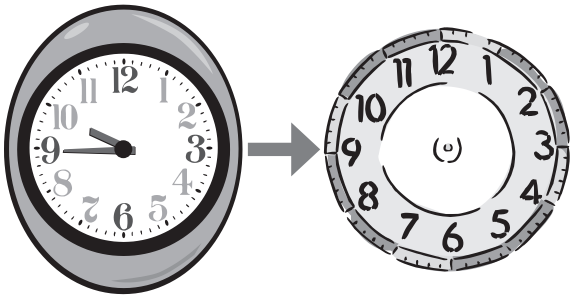
b

3 **Show the time 30 minutes later on each clock:**

a

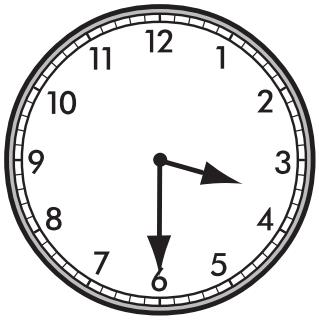


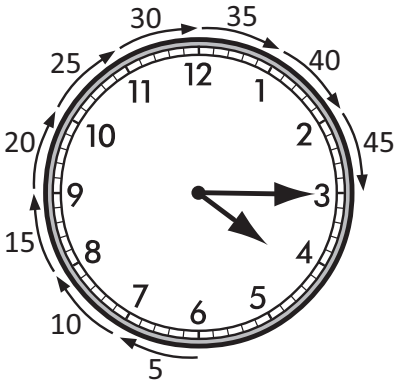
b



Measuring time – time trails

The minute hand moves around the clock to mark 60 minutes every hour.
Between each number there are 5 minutes.





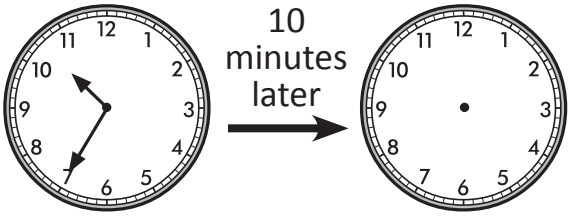
So, 45 minutes later than 3:30 is 4:15.

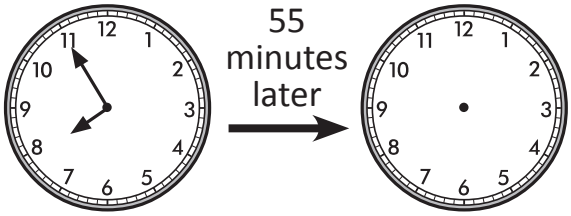
4 **Write the number of minutes it takes the minute hand to move from the following:**

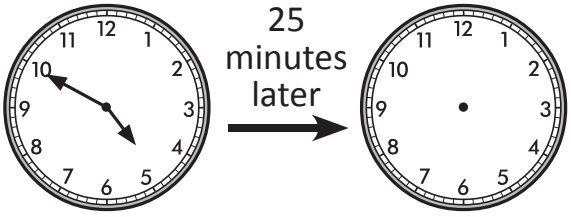
a 6 to 7 ☐ **b** 6 to 9 ☐ **c** 12 to 3 ☐

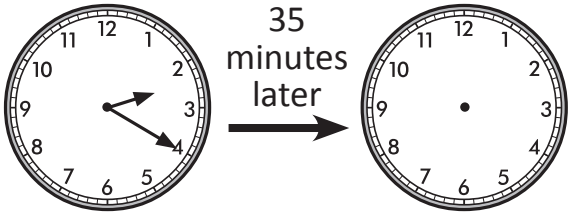
d 7 to 11 ☐ **e** 8 to 10 ☐ **f** 6 to 12 ☐

5 **Show the time on each clock:**

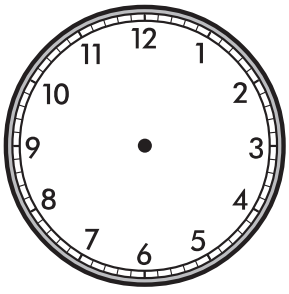
a 

b 

c 

d 

6 **Ellie went to her friend's house at 4:15 pm and was home 45 minutes later. At what time was she home? Show it on this clock face:**



Measuring time – calendars

A calendar shows how the year is organised into months, weeks and days.

One year can be thought of as 12 months long *or* 52 weeks long *or* 365 days long (sometimes 366 days long).

1 **Answer the questions about the first 2 months of the year.**

January						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

a How many school days are there in February? _____

b What day of the week is the 20th January? _____

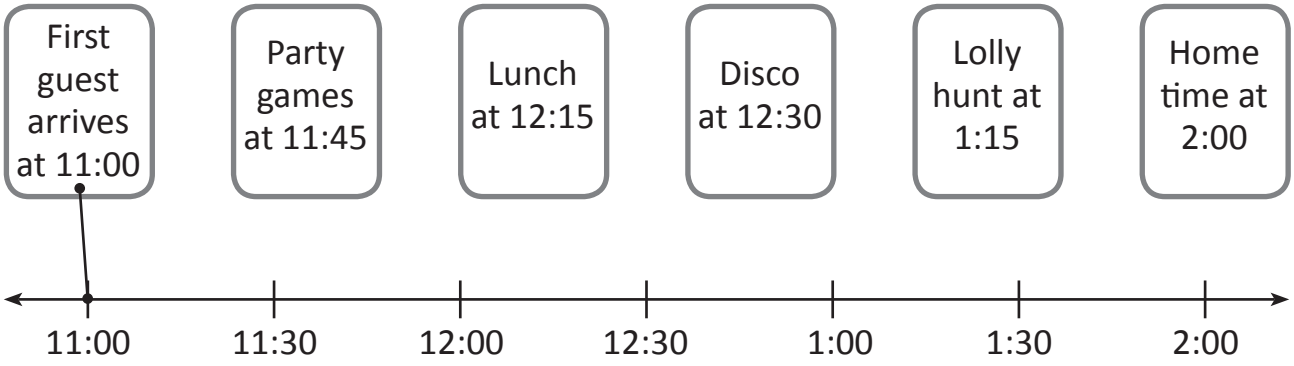
c How many Mondays are there in January? _____

d What is the date of the last Wednesday in February? _____

e What dates is the third weekend in February? _____

f What day of the week is the 1st of March? _____

2 **A timeline shows the order of events. Draw a line to match each of the events of Mick's party to the timeline. The first one has been done for you.**



Measuring time – timetables

3 **The questions below relate to Zara the zoo keeper's typical daily timetable:**

5:15 am	Wake up, have breakfast
6:00 am	Feed the lions and tigers
6:30 am	Wash the elephants
7:00 am	Clear out reptile cages
9:00 am	Weigh the baby penguins and record their growth
10:15 am	Train the seals to cartwheel
11:30 am	Play with the pandas
12:30 pm	Lunch
1:30 pm	Guide a school tour
2:45 pm	Bottle feed the baby possums
3:15 pm	Scrub the shells of the giant tortoises
4:00 pm	Give a talk on endangered animals
5:00 pm	Guide a twilight tour
6:00 pm	Close zoo gates

a How long does it take Zara to feed the lions and tigers? _____

b At 8:00 am, what will Zara most likely be doing? _____

c Zara washes the elephants at _____.

d How long does it take to weigh the baby penguins and record their growth? _____

e Zara spends _____ minutes training the seals.

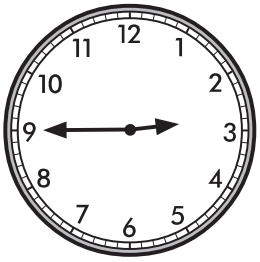
f How long does a guided school tour go for? _____

g What does Zara do at a quarter past three? _____

h How long does the talk on endangered animals go for? _____

4 **What is Zara doing at each of these times?**

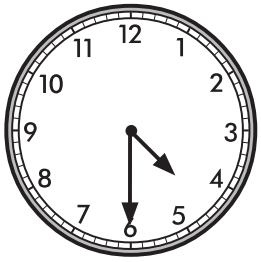
a



_____

_____

b



_____

_____

Calendar dates — solve

Getting ready

For this challenge, you just need this page and a pencil.

What to do

For each question read the clues and write the answers below:

September

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

October

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

November

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

a If today is Saturday, 19th September, what is the day and date 2 weeks from now?

_____

b If today is Monday, 5th October, what is the day and date 3 weeks from tomorrow?

_____

c Sally's birthday is on 21st September. Ellie's birthday is 3 weeks earlier. What day of the week is Ellie's birthday?

_____

d Harley's birthday is on 25th October. Toni's birthday is 10 days after Harley's. What date is Toni's birthday?

_____

Calendar match

apply

Getting ready

This is a race for 2 players. You will need a copy of this page because you will need to cut out the cards below.

What to do

Cut out the months of the year cards (there are 24). Shuffle them and lay them face down. Take turns to draw a card and tick off an item on the checklist. The person who ticks off all their items first wins.

January	January
February	February
March	March
April	April
May	May
June	June
July	July
August	August
September	September
October	October
November	November
December	December

Checklist

1 The 8th month of the year.

2 Your birthday month.

3 The month before Christmas.

4 2 months after July.

5 3 months before February.

6 A month with 31 days.

7 A month that has a different number of days in a leap year.

8 A month with 30 days.

9 The 10th month of the year.

10 The month of Christmas.

11 4 months after April.

12 The 11th month of the year.

13 This month starts with ‘O’.

14 This month starts with ‘M’.