

Monday 22nd June 2020

L.O. – To convert time and understand timetables.

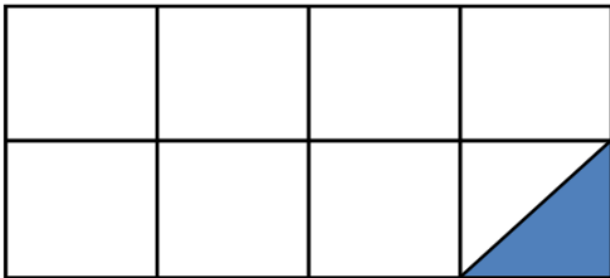
*Parents – Please note that the answers for most problems will be shown on the next slide. Please get your children to answer the questions before moving to the next slide.

There is also a Parents Only answer sheet for the daily worksheets. Please use this to mark your child's learning.

Problems of the day.

- 1 Mo and his four friends eat a meal.
They each pay for part of the meal.
Mo pays £5.20
Each of his friends pay £3.80
How much did the meal cost in total?

- 2 What fraction of the shape is shaded?



- 3 A fish tank holds 30 litres of water.



The fish tank is $\frac{3}{5}$ full.

How much more water is needed to fill the tank?

Problems of the day.

1 Mo and his four friends eat a meal.

They each pay for part of the meal.

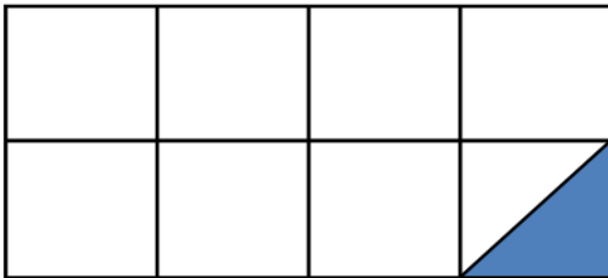
Mo pays £5.20

Each of his friends pay £3.80

How much did the meal cost in total?

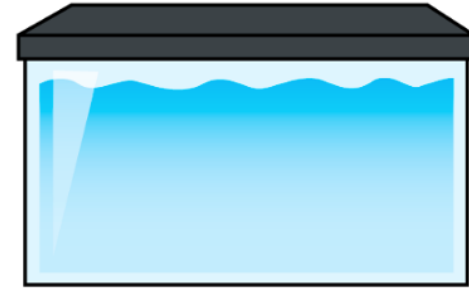
£20.40

2 What fraction of the shape is shaded?



$\frac{1}{16}$

3 A fish tank holds 30 litres of water.



The fish tank is $\frac{3}{5}$ full.

How much more water is needed to fill the tank?

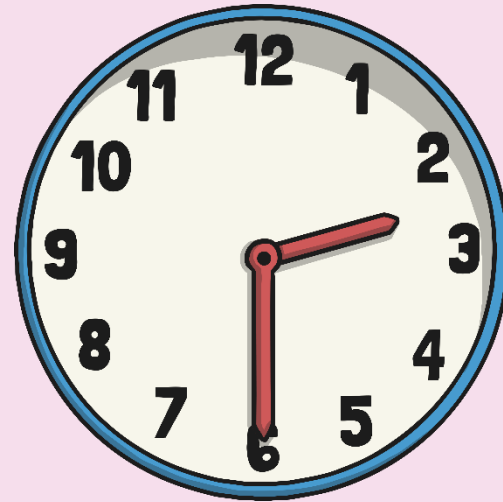
12 litres

The 24 Hour Day

A day has 24 hours. A clock has 12 hours.
This means each time will happen twice every day.



half past 2 in the morning



half past 2 in the afternoon

a.m. and p.m.

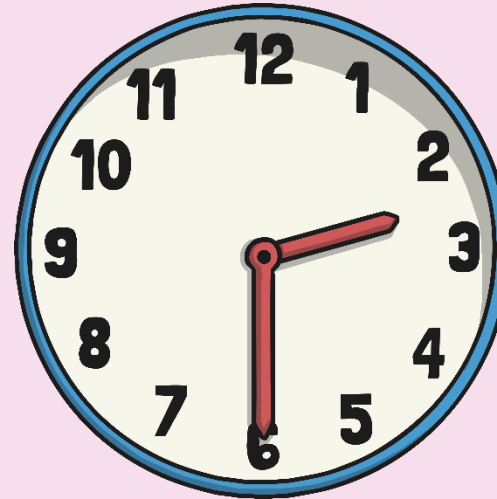
We have to use a way to write these times differently. One way is to use a.m. and p.m.

a.m. (ante meridiem – before noon)



2:30 a.m.

p.m. (post meridiem – after noon)

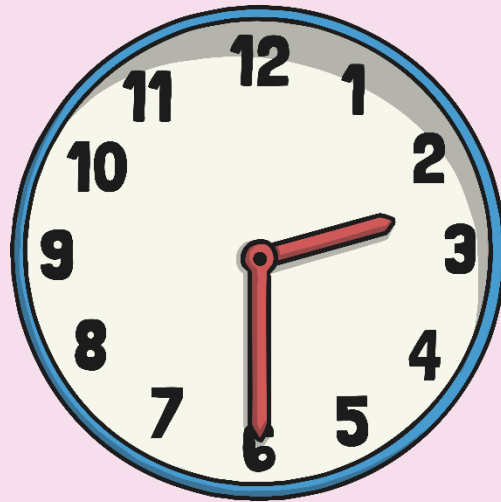


2:30 p.m.

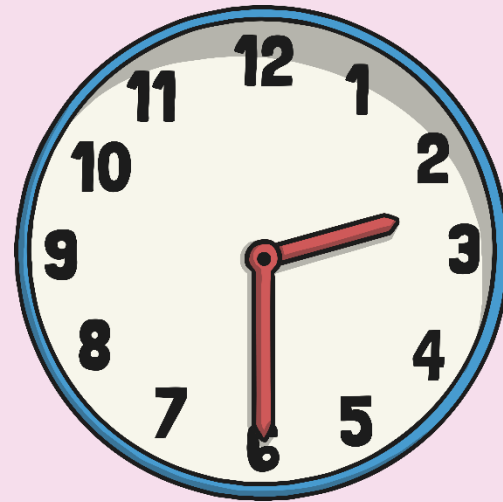
The 24 Hour Clock

Another way is to use a 24 hour clock.

This means the hours after 12 noon are converted to 13:00 to 23:00.



2:30



14:30

A 4 digit format is used. 2 digits for the hour, a colon (:), and 2 for the minutes.

24 Hour Hours

This clock and table show the corresponding hours on a 24 hour clock.

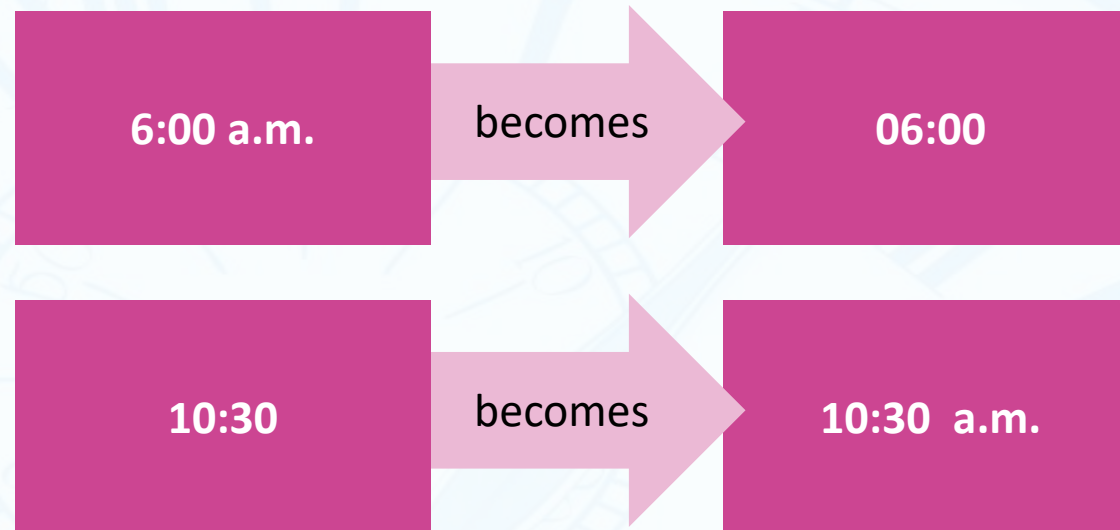


0:00 = 12:00 AM	12:00 = 12:00 PM
01:00 = 1:00 AM	13:00 = 1:00 PM
02:00 = 2:00 AM	14:00 = 2:00 PM
03:00 = 3:00 AM	15:00 = 3:00 PM
04:00 = 4:00 AM	16:00 = 4:00 PM
05:00 = 5:00 AM	17:00 = 5:00 PM
06:00 = 6:00 AM	18:00 = 6:00 PM
07:00 = 7:00 AM	19:00 = 7:00 PM
08:00 = 8:00 AM	20:00 = 8:00 PM
09:00 = 9:00 AM	21:00 = 9:00 PM
10:00 = 10:00 AM	22:00 = 10:00 PM
11:00 = 11:00 AM	23:00 = 11:00 PM

Midnight is referred to as 00:00

24 Hour Time in the Morning

To convert between 12 and 24 hour time in the morning change the format.



The hours stay the same.

24 Hour Time in the Afternoon

To convert between 12 and 24 hour time in the afternoon add or subtract 12 hours and change the format.



6:00 p.m. becomes 18:00



22:30 becomes 10:30 p.m.

Converting time

Convert these times

Time A	Time B
2:45 a.m.	
10:20 a.m.	
1:55 p.m.	
3:05 p.m.	
18:55	
23:12	
10:42	

Converting time

Convert these times

Time A	Time B
2:45 a.m.	02:45
10:20 a.m.	10:20
1:55 p.m.	13:55
3:05 p.m.	15:05
18:55	6:55 pm
23:12	11:12 pm
10:42	10:42 am

Timetables

Transport timetables often use 24 hour times. Here is an example of a bus timetable:

Service Number	83	83a	83	83a
Ecclesfield, Mill Rd	17:10	17:21	17:35	17:41
Ecclesfield, High St	-	17:24	-	17:44
Southey Green, Moonshine Ln	17:22	17:33	17:47	17:53
Pitsmoor, Pinfold Ln	17:34	17:45	17:59	18:05
Sheffield, Snig Hill	17:42	17:55	18:07	18:15
Hunters Bar, Ecclesall Rd	18:04	18:13	18:27	18:33
Fulwood, Crimicar Ln	-	18:27	-	18:47
Bents Green, Ringinglow Rd	18:15	-	18:38	-

Timetables

Sometimes, 24 hour clock times appear without the separating colon (:). Here's what the bus timetable would look like without the colon:

Service Number	83	83a	83	83a
Ecclesfield, Mill Rd	1710	1721	1735	1741
Ecclesfield, High St	-	1724	-	1744
Southey Green, Moonshine Ln	1722	1733	1747	1753
Pitsmoor, Pinfold Ln	1734	1745	1759	1805
Sheffield, Snig Hill	1742	1755	1807	1815
Hunters Bar, Ecclesall Rd	1804	1813	1827	1833
Fulwood, Crimicar Ln	-	1827	-	1847
Bents Green, Ringinglow Rd	1815	-	1838	-

12 and 24 hour clock times

	midnight	a.m.	noon	p.m.
12 hour	12:00 a.m.	e.g. 5:15 a.m.	12:00 p.m.	e.g. 4:15 p.m.
24 hour	00:00	e.g. 05:15	12:00	e.g. 16:15

Tasks

Complete –

- Worksheet.

If you have any misunderstandings then please head to Education City or email the school on –

learning@wembleyprimary.brent.sch.uk

Worksheet

Here is a rule for the time it takes to cook a chicken.

Cooking time = 20 minutes plus an extra
40 minutes for each kilogram

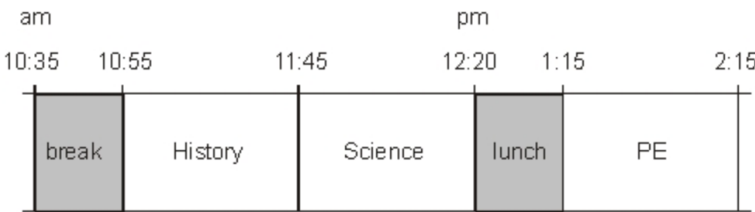
How many minutes will it take to cook a 3 kg chicken?

minutes

What is the mass of a chicken that takes 100 minutes to cook?

kg

Here is part of the timetable for Class 6 on a Monday.



Look at the timetable.

How long is it from the **end** of break to the **start** of lunch?

Nisha leaves the Science lesson after 25 minutes.

Then she goes to the dentist.

What time does she leave the Science lesson?

Some children ran in two races on sports day.

Here are their times.

	100 m race	800 m race
Elise	15.9 seconds	3 minutes 02 seconds
Jake	19.7 seconds	2 minutes 58 seconds
Teri	16.8 seconds	3 minutes 01 seconds
Neil	17.1 seconds	2 minutes 59 seconds
Barry	18.4 seconds	2 minutes 57 seconds

Who finished the 100 m race in **second** place?

In the 800 m race, how many seconds did Barry finish ahead of Elise?

seconds

Jack says,



To change any time after midday from 12 hours to 24 hours digital time just add 12 to the hours

Will this always be true? Are there any examples where this isn't the case?

Extra Challenge



Here is part of a train timetable.

Edinburgh	–	09.35	–	–	13.35	–	–
Glasgow	09.15	–	11.15	13.15	–	13.45	15.15
Stirling	09.57	–	11.57	13.57	–	14.29	15.57
Perth	10.34	10.51	12.34	14.34	14.50	15.15	16.35
Inverness	–	13.10	–	–	17.05	–	–

How long does the first train from Edinburgh take to travel to Inverness?

1 mark

Ellen is at Glasgow station at 1.30 pm.

She wants to travel to Perth.

She catches the next train.

At what time will she arrive in Perth?

Jack finished a sponsored run in 53 minutes 25 seconds.

Ally finished 3 minutes 50 seconds **after** Jack.

How long did Ally take?

minsec

Layla finished the run 8 minutes 45 seconds **before** Jack.

How long did Layla take?

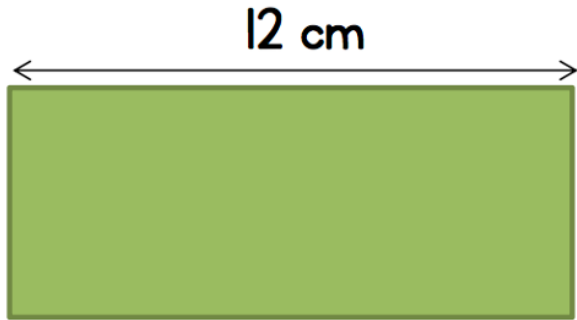
minsec

Tuesday 23rd June 2020

L.O. – To further our knowledge of timetables.

Problems of the day.

- 1** The perimeter of the rectangle is 36 cm.



What is the area of the rectangle?

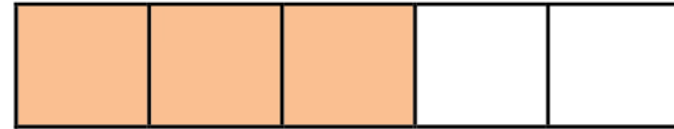
- 2** There are 80 red and blue counters in total.

There are 12 more red counters than blue ones.

How many red counters are there?

- 3** How many tenths are there in each of the fractions below?

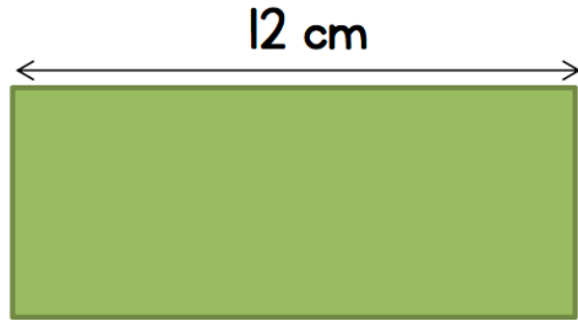
(a) Three fifths



(b) $3\frac{2}{5}$

Problems of the day.

- 1 The perimeter of the rectangle is 36 cm.



What is the area of the rectangle?
 72 cm^2

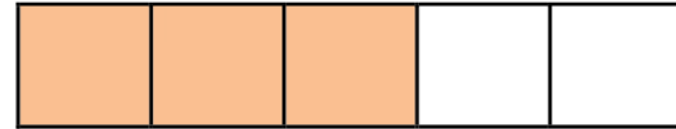
- 2 There are 80 red and blue counters in total.

There are 12 more red counters than blue ones.

How many red counters are there? 46

- 3 How many tenths are there in each of the fractions below?

(a) Three fifths $\frac{6}{10}$

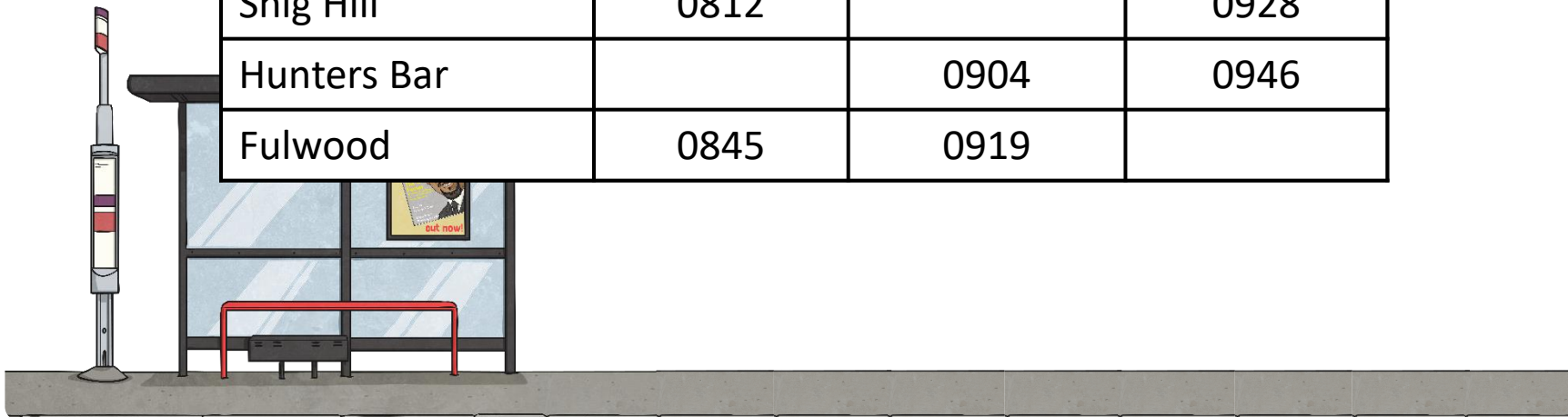


(b) $3\frac{2}{5}$ $\frac{34}{10}$

Bus Timetable

The buses on this timetable all take the same time to travel the route.
Complete the table.

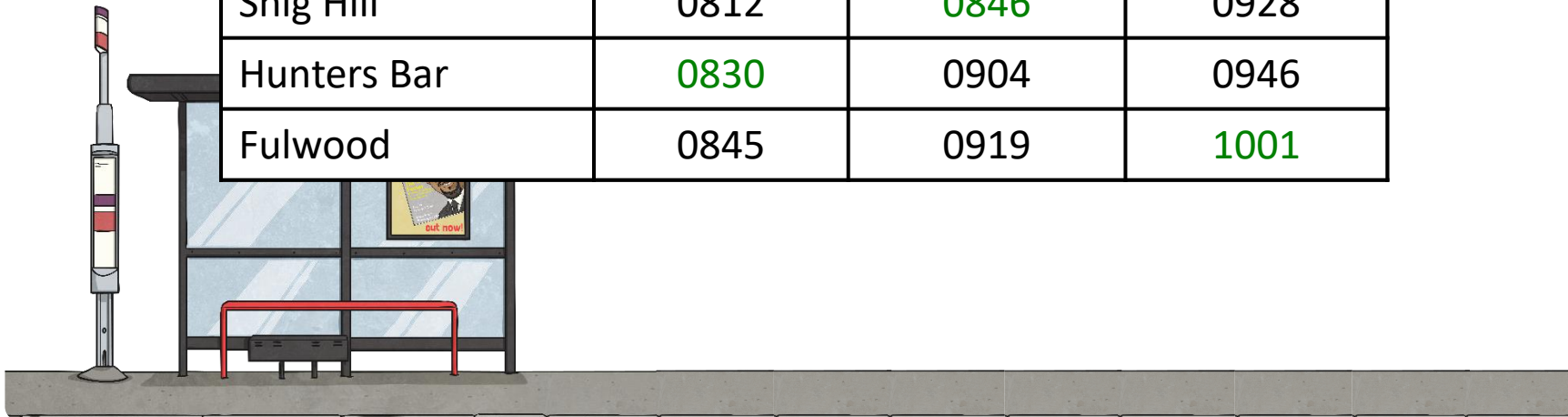
Mill Road	0726		0842
High St	0729	0803	
Southey Green		0816	0858
Pitsmoor Road	0759	0833	
Snig Hill	0812		0928
Hunters Bar		0904	0946
Fulwood	0845	0919	



Bus Timetable

The buses on this timetable all take the same time to travel the route.
Complete the table.

Mill Road	0726	0800	0842
High St	0729	0803	0845
Southey Green	0742	0816	0858
Pitsmoor Road	0759	0833	0915
Snig Hill	0812	0846	0928
Hunters Bar	0830	0904	0946
Fulwood	0845	0919	1001



Train Timetable

Here is the timetable for the Peak Rail Steam Railway in Derbyshire.

Excluding stops, how long is the journey from Rowsley to Matlock?

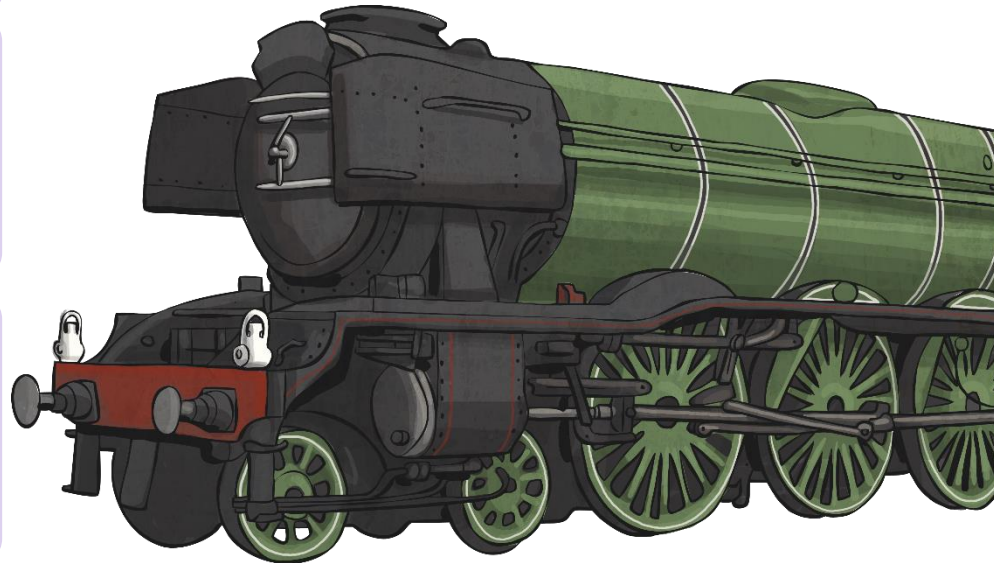
Explain how you know if each journey takes the same time?

How many trains are needed to run the service?

How long in total is the train due to be waiting in each station between leaving Rowsley at 1100 and returning at 1536.

Explain how you can check the answers using the total time the train is travelling.

Rowsley South (Depart)	1100	1214	1328	1442
Darley Dale (Arrive)	1105	1219	1333	1447
Darley Dale (Depart)	1107	1221	1335	1449
Matlock (Arrive)	1122	1236	1350	1504
Matlock (Depart)	1132	1246	1400	1514
Darley Dale (Arrive)	1147	1301	1415	1529
Darley Dale (Depart)	1149	1303	1417	1531
Rowsley South (Arrive)	1154	1308	1422	1536



Train Timetable

Here is the timetable for the Peak Rail Steam Railway in Derbyshire.

20 minutes

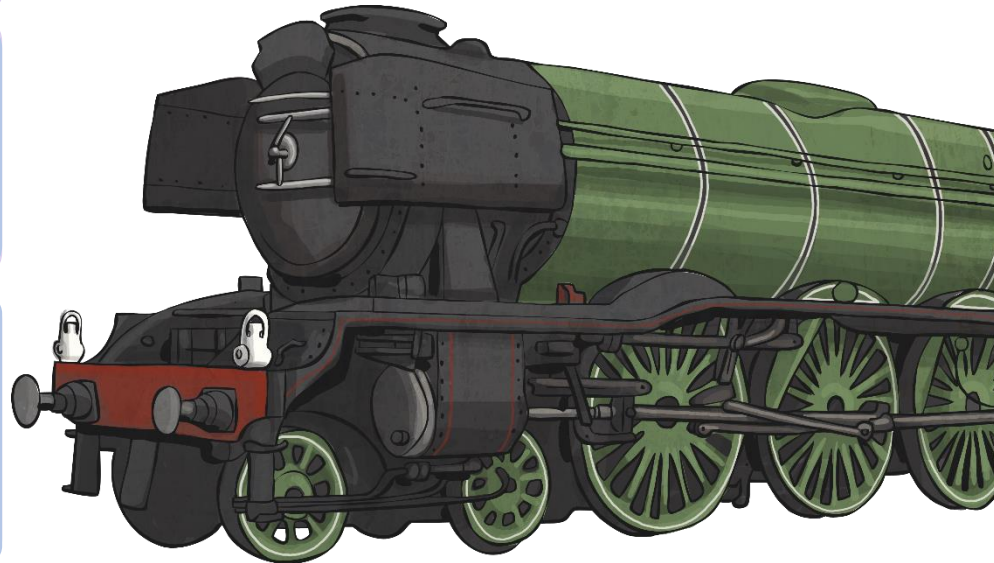
Each journey lasts 22 minutes with a 2 minutes stop.

Only 1 as it goes back and forth between Rowsley and Matlock.

Rowsley 60 minutes, Matlock 40 minutes, Darley Dale 16 minutes.

Total time from 1100 to 1536 is 4 hours 36 minutes (276 minutes).
8 journeys of 20 minutes = 160 minutes. Waiting = 116 minutes. $160 + 116 = 276$ minutes.

Rowsley South (Depart)	1100	1214	1328	1442
Darley Dale (Arrive)	1105	1219	1333	1447
Darley Dale (Depart)	1107	1221	1335	1449
Matlock (Arrive)	1122	1236	1350	1504
Matlock (Depart)	1132	1246	1400	1514
Darley Dale (Arrive)	1147	1301	1415	1529
Darley Dale (Depart)	1149	1303	1417	1531
Rowsley South (Arrive)	1154	1308	1422	1536



Tasks

Complete –

- Worksheet.

If you have any misunderstandings then please head to Education City or email the school on –

learning@wembleyprimary.brent.sch.uk

Worksheet

NatureWatch		NatureWatch +1		QuizTime		Cookery Channel	
5 p.m.	News	5 p.m.	Puppy Playtime	5 p.m.	Talk the Talk	5 p.m.	Cheese Please
5:30 p.m.	Weather	6 p.m.	News	5:30 p.m.	Quizdom	6 p.m.	Cook with Lydia
5:45 p.m.	Deep Blue	6:30 p.m.	Weather	6 p.m.	What's the Q?	6:30 p.m.	Pizza Pasta Pietro
6 p.m.	Pampered Pets	6:45 p.m.	Deep Blue	6:30 p.m.	aMAZEment	6:45 p.m.	5 Minute Menu
7 p.m.	Safari	7 p.m.	Pampered Pets	7:30 p.m.	Buzzed Out	7 p.m.	Budget Baker
8:15 p.m.	Animal Antics	8 p.m.	Safari	8 p.m.	Guess the Noise	8 p.m.	Lots of Lollies
9:15 p.m.	Worldly Wonders	9:15 p.m.	Animal Antics	9 p.m.	Dance & Decide	9:15 p.m.	Biscuit Bites

Ron wants to watch the following TV programmes: Cheese Please, What’s the Q, aMAZEment, Budget Baker, Safari, Dance & Decide.

Will Ron be able to watch all the shows he has chosen?

It is 18:45. How long is it until ‘Guess the Noise’ is on?

Here is part of the bus timetable from Riverdale to Mott Haven.

Riverdale	10:02	10:12	10:31	10:48
Kingsbridge	10:11	10:21	10:38	10:55
Fordham	10:28	10:38	10:54	11:11
Tremont	10:36	10:44	11:00	11:17
Mott Haven	10:53	11:01	11:17	11:34

How many minutes does it take the 10:31 bus from Riverdale to reach Mott Haven?

minutes

Mr Evans is at Fordham at 10:30

What is the **earliest** time he can reach Tremont on the bus?

William wants to travel to Paris by train.

He needs to arrive in Paris by **5:30 pm**.

Circle the **latest time** that William can leave London.

Leaves London	Arrives Paris
12:01	15:22
12:25	15:56
13:31	16:53
14:01	17:26
14:31	17:53
15:31	18:53
16:01	19:20

Extra Challenge

A machine pours 250 millilitres of juice every 4 seconds.

How many **litres** of juice does the machine pour every **minute**?

The length of a day on Earth is 24 hours.

The length of a day on Mercury is $58\frac{2}{3}$ times the length of a day on Earth.

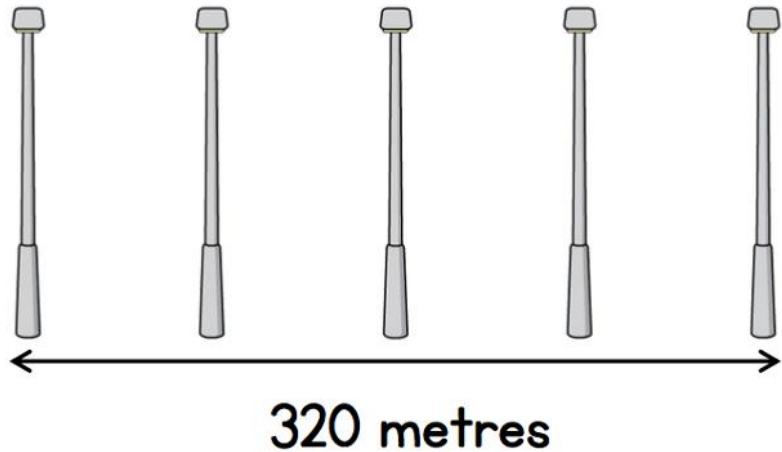
What is the length of a day on Mercury, in **hours**?

Wednesday 24th June 2020

L.O. – To practice word problems about time.

Problems of the day.

- 1** Five lampposts are equally spaced along a road.



The distance between the first and last lamppost is 320 metres.

How many metres are there between the second and last lampposts?

- 2** There are 360 people watching a film.
There are 197 adults watching the film.
How many more adults than children are watching the film?

- 3** Work out the missing numbers.

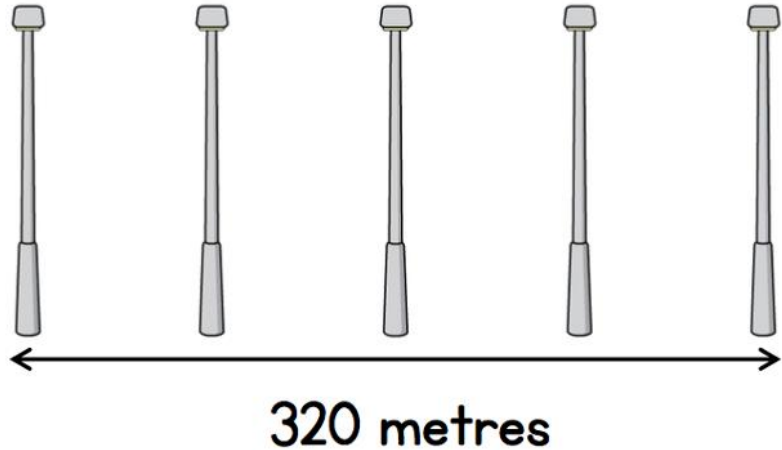
$$50\% \text{ of } \boxed{} = 30$$

$$25\% \text{ of } \boxed{} = 30$$

$$\frac{2}{3} \text{ of } \boxed{} = 30$$

Problems of the day.

- 1 Five lampposts are equally spaced along a road.



The distance between the first and last lamppost is 320 metres.

How many metres are there between the second and last lampposts? **240 m**

- 2 There are 360 people watching a film.
There are 197 adults watching the film.
How many more adults than children are watching the film? **34**

- 3 Work out the missing numbers.

$$50\% \text{ of } \boxed{60} = 30$$

$$25\% \text{ of } \boxed{120} = 30$$

$$\frac{2}{3} \text{ of } \boxed{45} = 30$$

Hours and Minutes

- The film Animalropolis is 108 minutes long.
 - Explain how you would convert this to hours and minutes and then calculate the finishing time when the film starts at 14:25.



Hours and Minutes

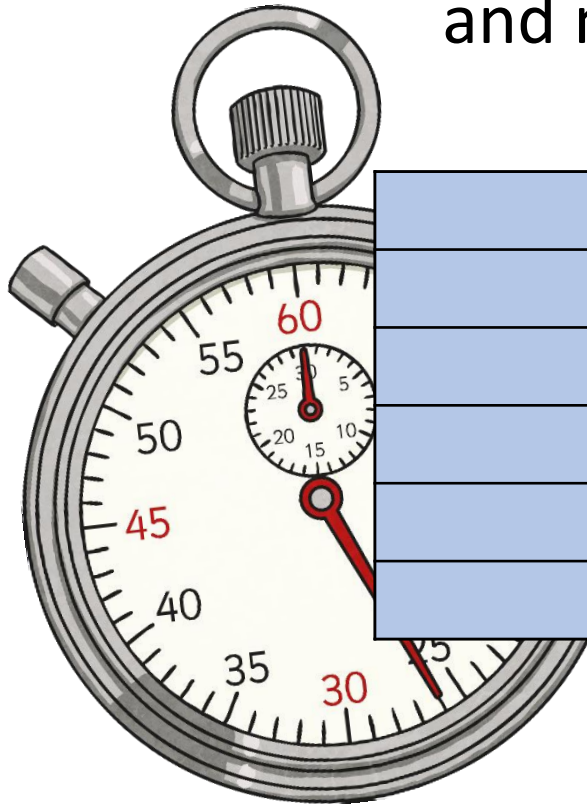
Divide the number of minutes by 60 to get the whole number of hours. In this case, 1 hour (60 minutes). Subtract the multiple of 60 from the minutes to leave the number of minutes after the hours. $108 - 60 = 48$. 108 minutes = 1 hour and 48 minutes.

The film starts at 14:25. Add 1 hour, makes 15:25. Add the 48 minutes to 25 gives 73 minutes. As it is more than 60, the finish time will be after the following hour by 13 minutes ($73 - 60 = 13$). The film will finish at 16:13.



Minutes and Seconds

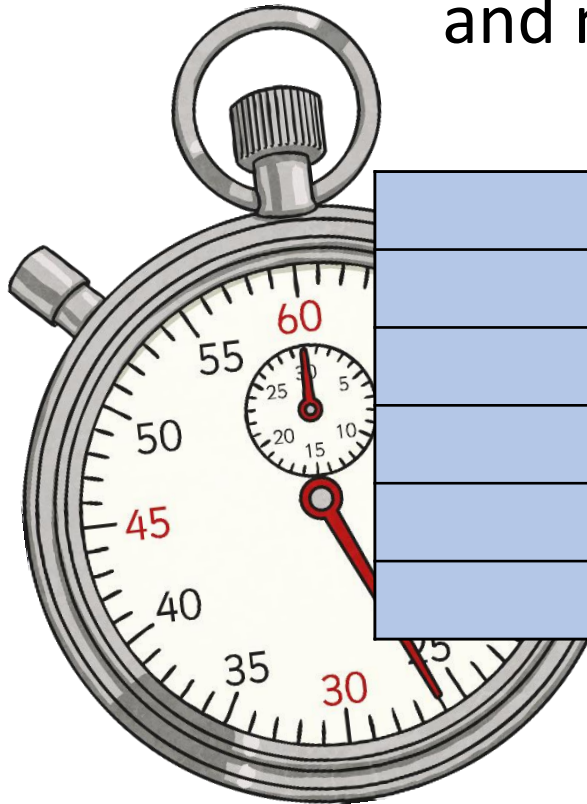
- Complete this table to convert between seconds and minutes and seconds:



Seconds	Minutes and Seconds
140	
	1:45
	3:10
250	
	5:35

Minutes and Seconds

- Complete this table to convert between seconds and minutes and seconds:



Seconds	Minutes and Seconds
140	2:20
105	1:45
190	3:10
250	4:10
335	5:35

Explain how you found these answers.

Hours and Days

- Answer these:

1. An online company promises delivery within 48 hours. How many days is that?
2. Medicine needs to be taken once every 6 hours. How many days will 32 tablets last?
3. How many hours in a week?



Hours and Days

- Answer these:

1. An online company promises delivery within 48 hours. How many days is that?

2 days

2. Medicine needs to be taken once every 6 hours. How many days will 32 tablets last?

8 days

3. How many hours in a week?

168 hours

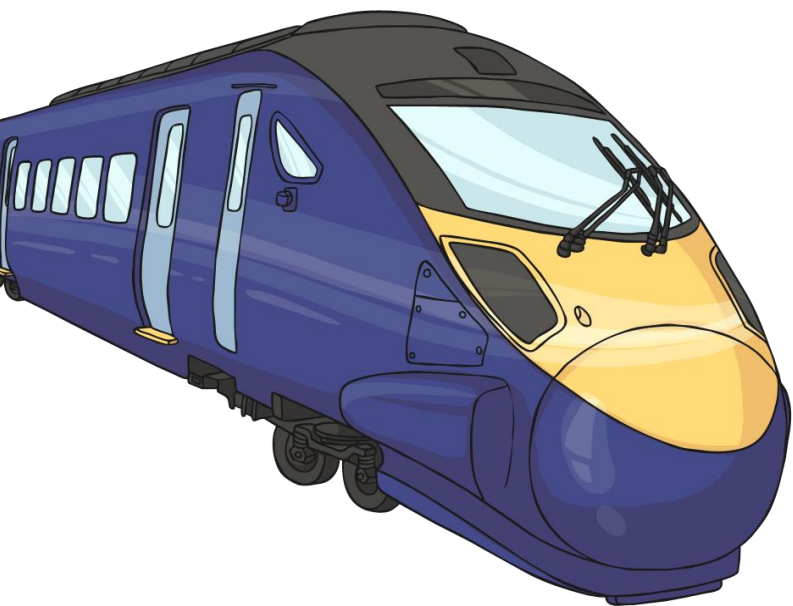


Write some of your own questions, or get an adult to, for you to answer.

Take the Train

- Here is a train timetable.

Sheffield	Departure	12:29	12:49	13:29	13:49	14:29	14:49	15:29	15:49	16:29
London St Pancras International	Arrival	14:30	14:59	15:31	15:59	16:32	16:59	17:29	18:07	18:36
Duration										
Duration in Minutes										

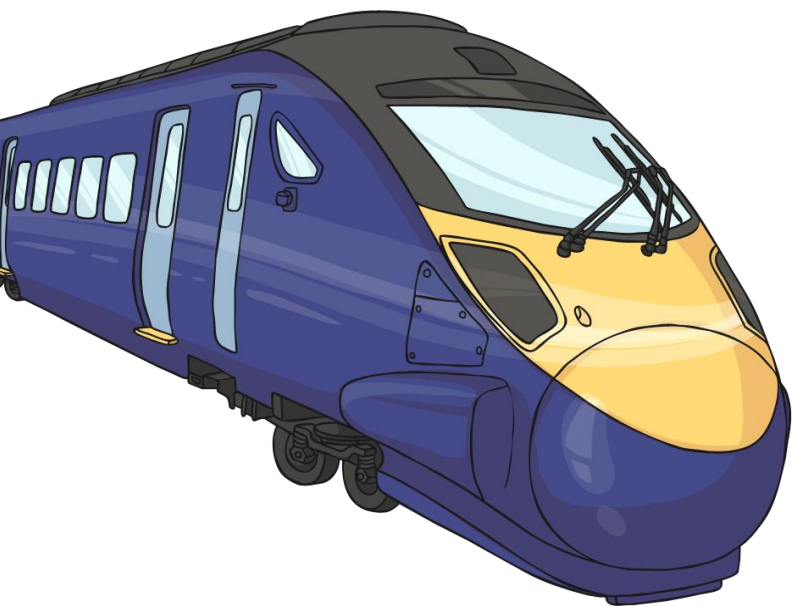


1. Work out the duration of each journey in hours and minutes.
2. Convert the duration of the journeys into minutes.

Take the Train

• Here is a train timetable.

Sheffield	Departure	12:29	12:49	13:29	13:49	14:29	14:49	15:29	15:49	16:29
London St Pancras International	Arrival	14:30	14:59	15:31	15:59	16:32	16:59	17:29	18:07	18:36
Duration		2:01	2:10	2:02	2:10	2:03	2:10	2:00	2:18	2:07
Duration in Minutes		121	130	122	130	123	130	120	138	127



1. Work out the duration of each journey in hours and minutes.
2. Convert the duration of the journeys into minutes.

Tasks

Complete –

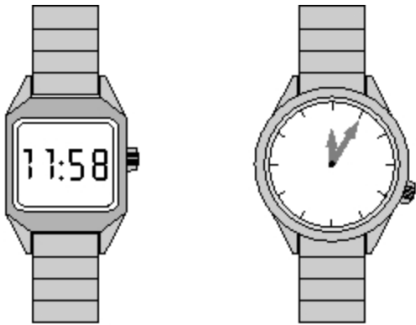
- Worksheet.

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learning@wembleyprimary.brent.sch.uk

Worksheet

One of these watches is **3 minutes fast**.
The other watch is **4 minutes slow**.



What is the correct time?

Y7CM		1 09:15 - 09:55	2 09:55 - 10:45		3 11:05 - 11:55	4 11:55 - 12:45		5 13:45 - 14:35	6 14:35 - 15:25
Monday	Daily Assembly (09:00 - 09:15)	Literacy	English	Break (10:45 - 11:05)	Maths	I.C.T.	Lunchtime (12:45 - 13:45)	P.S.H.C.E.	Geography
Tuesday		English	Art		French	Science		D.T.	
Wednesday		Literacy	D.T.		Art	Drama		I.C.T.	Science
Thursday		P.E.	Maths		R.E.	English		History	P.S.H.C.E.
Friday		Literacy	Maths		Art	Science		P.E.	

True or False?

- Rosie has 2 hours and 20 minutes of PE in a week.
- Rosie has 130 minutes of literacy in a week.
- Rosie does Art for the same length of time as Maths each week.
- Rosie does Art for the same length of time as English each week.

Jack arrives at the train station at the time shown in the morning.

Which trains could he catch?



Destination	Departs
York	07 : 10 a.m.
New Pudsey	09 : 25 a.m.
Bramley	09 : 42 a.m.
Leeds	10 : 03 a.m.

How long will Jack have to wait for each train?

Here are the sunrise and sunset times for some days in July.

Date	Sunrise	Sunset
7th	04:53	21:18
14th	05:00	21:12
21st	05:09	21:05
28th	05:18	20:55

How many minutes earlier is the **sunset** on 28th July than on 7th July?

12 : 21

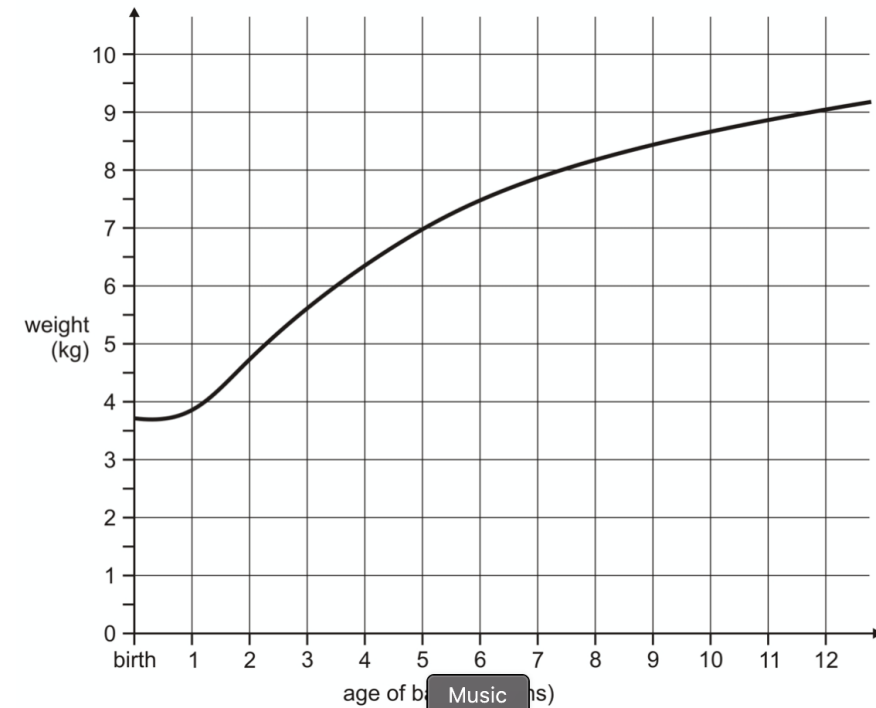
On a 12 hour digital clock, how many times will the time be read the same forwards and backwards?

Extra Challenge



How many **days** old will the baby be when she has lived for **one million seconds**?

This graph shows how the weight of a baby changed over twelve months.



From the graph, what was the weight of the baby at **10 months**?

kg

How much **more** did the baby weigh at 5 months than at birth?

kg

Thursday 25th June 2020

L.O. – To investigate time problems.

This is a bonus day to take the opportunity to use the knowledge that you have learnt throughout the week to use in an investigation.

This is a great chance for you to challenge yourself and ask yourself questions to push your understanding further.

Problems of the day.

- 1 Mr Khan hires a bike on holiday.

The table shows the costs.

Holiday Bikes For Hire	
	
First hour	£12
Every additional half hour	£4.50

Mr Khan hires the bike from 10.45am to 2.15pm.

How much does it cost him to hire the bike?

- 2 Freya receives some pocket money.

She spends

- $\frac{1}{5}$ of the money on a book.
- $\frac{3}{4}$ of what she has left on a game.



Freya now has £3.80 left.

How much pocket money did she receive?

Problems of the day.

1 Mr Khan hires a bike on holiday.

The table shows the costs.

Holiday Bikes For Hire	
	
First hour	£12
Every additional half hour	£4.50

Mr Khan hires the bike from 10.45am to 2.15pm.

How much does it cost him to hire the bike?

£34.50

2 Freya receives some pocket money.

She spends

- $\frac{1}{5}$ of the money on a book.
- $\frac{3}{4}$ of what she has left on a game.



Freya now has £3.80 left.

How much pocket money did she receive?

£19

Tasks

Complete –

- Worksheet.

If you have any misunderstandings then please head to Education City or email the school on –

learning@wembleyprimary.brent.sch.uk

Wonky Watches

Mandeep's watch loses two minutes every hour.

Adam's watch gains one minute every hour.

They both set their watches from the radio at 6:00 a.m. then start their journeys to the airport. When they arrive (at the same time) their watches are 10 minutes apart.



At what time (the real time) did they arrive at the airport?

Friday 26th June 2020

L.O. –.

This is the opportunity to use the knowledge that you have learnt throughout the week to use in an investigation.

This is a great chance for you to challenge yourself and ask yourself questions to push your understanding further.

Problems of the day.

- 1** A shape is made up of four rectangles.

The area of each rectangle is shown.



What is the perimeter of the shape?

- 2** Sam and Zach each have some money.

Sam spends $\frac{1}{4}$ of her money.

Zach spends 90% of his money.

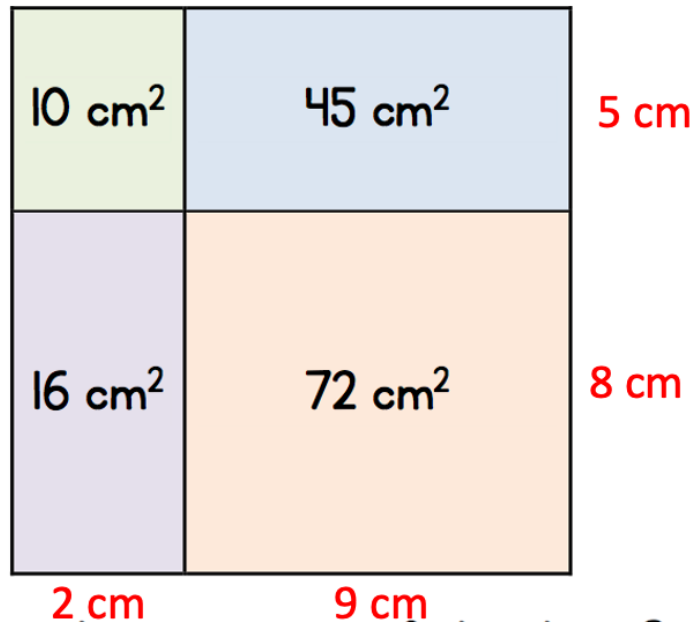
They each have £60 left.

How much more money did Zach have at the start than Sam?

Problems of the day.

- 1 A shape is made up of four rectangles.

The area of each rectangle is shown.



What is the perimeter of the shape?

48 cm

- 2 Sam and Zach each have some money.

Sam spends $\frac{1}{4}$ of her money.

Zach spends 90% of his money.

They each have £60 left.

How much more money did Zach have at the start than Sam?

£520

Tasks

Complete –

- Worksheet.

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5 on the Clock

A digital clock display showing the time 8:58. The digits are in a standard seven-segment font. The hour is 8, the minutes are 58, and there is a colon between the hour and minutes.

On a digital clock showing 24-hour time, over a whole day, how many times does a 5 appear?

Is it the same number for a 12-hour clock over a whole day?