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TIME

Level 4 Questions on Time | SRH

Time is different to other sets of numbers in the number system because instead of operating in base 10 (like when we count), it operates in a combination of base 60 and base 12 or base 24. Why are there 60 seconds in a minute and 60 minutes in an hour? The reason for this is because the first people to look at time and record it were the Babylonians and they used to count in base 60. Napoleon Bonaparte tried to change time to base 10, but people were too used to the old system and so he failed. Unfortunately, because of this, time problems can sometimes be tricky.

When we use am and pm, we use am (meaning ante meridiem) to mean before noon or morning; and pm (meaning post meridiem) to mean after noon or after midday.

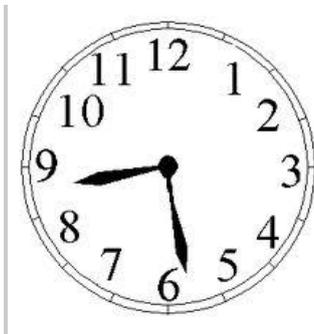
Look at the clocks below. Write down the times they say in both 12 hour and 24 hour clocks. Imagine that all the times are in the afternoon or evening, ie p.m. In your books, you need to write:

1. Ten past ten; 10:10pm; 22:10 Hrs.

1



2



3



4



5



6



7



8



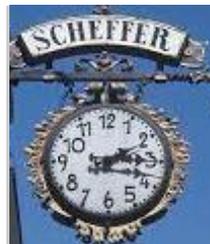
9



10



11



12



WALT: use a railway timetable.

Leeds	0753	0755	0819	0853	0921	0953
Batley	0812	-	0837	0912	0940	-
Dewsbury	0819	0820	0844	0919	0947	1018
Brighouse	0831	-	-	-	0959	1030
Huddersfield	-	0835	0849	0934	1015	1046

Look at the railway timetable above.

- 1 What time does the five to eight train from Leeds arrive in Dewsbury?**
- 2 If I needed to be in Brighouse for 10 o'clock, what is the latest train I could catch from Batley?**
- 3 How long does the train that arrives in Huddersfield shortly before ten to nine take to get there from Leeds?**
- 4 I have an appointment at the dentist in Dewsbury at twenty past nine. It takes me forty minutes to walk to the dentists from the railway station. What is the latest train I can catch from Leeds?**
- 5 The train that leaves Leeds at 0819 is sometimes late getting into Batley. Can you see why?**
- 6 How long is the railway journey from Brighouse to Huddersfield?**
- 7 The trains from Huddersfield to Leeds leave Huddersfield at the following times: 0903, 0937, 1006 and 1028. Draw up a time table for these trains assuming that the 1028 calls at all stations and all the others miss out Brighouse.**

Drawing Timelines

To calculate the difference between two times, you are best drawing a timeline.

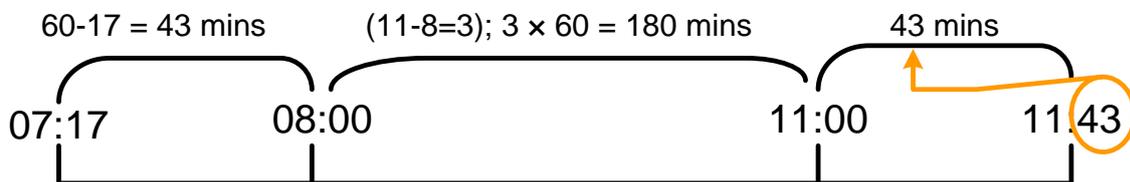


Filled in, the time line should look like this:

How many minutes from 7:17 until 11:43?



We can then work out how many minutes in each section.



Overall time = $43+180+43 = 266$ minutes

1. Calculate the difference in times in minutes between 7:19 am and 4:05pm in the same day.
2. How long is it from 2:16pm until 8:45pm in minutes?
3. We set off on a journey at 4:14pm. We arrived at our destination at 7:23pm. How long had the journey taken?
4. Walking the Lyke Wake Walk, we started at 1:30 am. We completed the walk at 21:39. How many minutes had it taken?

WALT: convert one unit of time to another.

There are 24 hours in one day; 60 minutes in one hour; 60 seconds in one minute.

- 1. How many minutes are there in one day?**
- 2. How many seconds are there in one week?**
- 3. How many hours are there in March (which has 31 days)?**
- 4. How many minutes are there between 10:17am and 11:35pm on the same day?**
- 5. How many seconds are there in four minutes and seventeen seconds?**
- 6. Between 11:13am and 12:09pm, how many seconds are there?**
- 7. How many seconds are there between 11:09:17am on the 7th May and 12:16:00pm on the 3rd June?**
- 8. It is now 11:41am on 23rd October. Santa is due to deliver on at 12:30am on Christmas day. How many minutes do I have to wait for the delivery?**
- 9. How many seconds are there in a normal year of 365 days?**
- 10. How many seconds are there in a leap year?**
- 11. How many seconds are there in one hour and twelve minutes?**
- 12. How many minutes are there in three hours and eighteen minutes?**

WALT: convert one unit of time to another.

There are 24 hours in one day; 60 minutes in one hour; 60 seconds in one minute.

- 1. How many minutes are there in one day?**
- 2. How many minutes are there in one week?**
- 3. How many hours are there in April (which has 30 days)?**
- 4. How many minutes are there between 10:19am and 11:35pm on the same day?**
- 5. How many minutes are there in four hours and seventeen minutes?**
- 6. Between 11:13am and 12:09pm, how many seconds are there?**
- 7. How many seconds are there between 11:05am and 2:14pm?**
- 8. How many minutes are there between 16:21Hrs and 3am the next morning?**
- 9. A race started at 10:17 am. The last runner came in at 14:23Hrs the same day. How long had the race lasted?**
- 10. I walked 12 miles starting at quarter past eight in the morning. I finished my walk at half past one in the afternoon. How fast was my average speed in miles per hour? (Hint: $\text{speed}=\text{distance}/\text{time}$)**
- 11. How many seconds are there in one hour and twelve minutes?**
- 12. How many seconds between 12:04pm and 11:37pm?**

WALT: use a calendar.

Below is a month of a calendar.

August 2014						
S	M	T	W	T	F	S
27	28	29	30	31	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	1	2	3	4	5	6

1. How many Mondays are there in August 2014?
2. How many days is it from 5th August until 29th August?
3. Sam's birthday is on the 9th August and he will be 12 in 2014. He always has his party on a Saturday. How old was he when he last had his party on his actual birthday?
4. How old will Sam be when he next has his party on his actual birthday?
5. Draw a calendar for the Month of March 2014.
6. How many days is it from 3rd June until the 27th September?
7. Sam's mum and dad have their wedding anniversary on the same date as Sam's birthday. They were married in 1996. For how many days had they been married when Sam was born?
8. Draw a calendar for August 2024.