



1. Here is the timetable for the Santa Express from Huddersfield to Sheffield.

Huddersfield	1000	1105	1210	1320
Shepley	1025	1130	1235	1345
Denby Dale	Arr.1040	Arr.1145	Arr.1250	Arr.1400
	Dep.1050	Dep.1155	Dep.1300	Dep.1410
Dodworth	1115	1220	1325	1435
Barnsley	1130	1235	1340	1450
Sheffield	1155	1300	1405	1515

- a. How long does the journey from Huddersfield to Sheffield take?
- b. When the 1105 passengers arrive in Sheffield, what are the 1210 passengers doing?
- c. If I want to be in Sheffield for 2pm, what time should I leave Shepley?

Christmas Time Challenge



- 2. Kaspar is doing some Christmas Shopping in York. Here's what he needs to do:
- Train to York (1 hour 45 minutes) arrives at 11:30;
- Walk from the station to the city centre (10 minutes);
- Shop in York;
- · Lunch in a café (50 minutes);
- More shopping;
- \bullet Walk back to station and get the train home.

Work out the times for:

- a. How much shopping time he will have if he needs to get the train home at 4:00pm?
- b. What time would he be back at the station if he spent 2.5 hours shopping?

Christmas Time Challenge



3. Kate makes some different recordings of Christmas songs on her mp3 recorder. Here are the recording durations

We Three Kings	Silent Night	Away in a Manger	Good King Wenceslas	We Wish You a Merry Christmas
3:23	3:12	2:53	2:22	3:35

- a. What is the total recording length in seconds?
- b. She needs to cut down the total recording to 12 minutes, which recording should she remove?



4. Ellie has to do some serious rehearsing on her piano for the school pantomime. She wants to keep track of her practice so she writes down the time, in the 24-hour clock, every time

she plays.



Start	Stop	
11:30	11:55	
12:32	12:45	
14:14	14:52	
15:33	16:07	
16:53	17:17	

What is Ellie's total practice time in hours and minutes?

Christmas Time Challenge





5. Mark needs to do these things today before he goes out Christmas Shopping. What time will be have to be ready to leave at 11.30am?

Job	Time	
Have breakfast	25 minutes	
Have a shower	20 minutes	
Write Christmas Cards	15 minutes	
Bake mince pies	1 hour 5 minutes	
Make packed lunch	15 minutes	

Christmas Time Challenge



6. Haniff is getting fitter by ice skating and timing his laps to try and work on his personal best. Here are his recent timings:

Lap 1	16:19 seconds
Lap 2	15:45 seconds
Lap 3	15:16 seconds
Lap 4	16:19 seconds
Lap 5	17:32 seconds



- a. What is his personal best time?
- b. What is the difference between the slowest and fastest laps?
- c. Use a calculator to work out the mean average time to two decimal places.

Christmas Time Challenge



7. Dad is watching his favourite Christmas film, which he has seen lot of times. He wants to fast forward the adverts. Calculate the length of each break. The times are in hours, minutes and seconds.

Start of Break	End of Break
00:23:20	00:26:50
00:58:10	01:01:25
01:19:45	01:23:25



- 8. The Taylor family are driving from Yorkshire to Devon to spend Christmas with the rest of their family. Here is their journey:
- Leave home at 9:15am
- Travel for 1 hour 35 minutes
- Stop at the service station for 25 minutes
- Travel for 1 hour 15 minutes
- Traffic jam stopped for 47 minutes
- Travel for 1 hour 7 minutes.
- a. What time did they arrive?
- b. How long (in hours and minutes) were they actually moving for?

Christmas Time Challenge



- 9. If 2nd December is a Tuesday, what days of the week are:
 - a. 12th December?
 - b. 20th December?
 - c. Christmas Day?
 - d. New Year's Day?



Christmas Time Challenge





10. Here is the plan for Christmas Activity Day at school. The day starts at 9:00am, you need to find out the start and finish times for each activity.

Activity Order	Duration	
Registration and Puzzles	25 minutes	
Party Hat Making	45 minutes	
Playtime	20 minutes	
Cracker Making	50 minutes	
Card Making	40 minutes	
Christmas Dinner Time	1 hour	
Carol Concert	1 hour 15 minutes	
Extended Playtime	35 minutes	
Collect cards, hates and get ready for home	20 minutes	

Christmas Time Challenge





11. Here are some world time zones:

Los Angeles	New York	London	Moscow	Sydney
- 8 hours	- 5 hours	GMT	+ 3 hours	+ 10 hours

- a. When Father Christmas visits London at midnight, what might children in New York and Sydney be doing at the same time?
- b. When children in Los Angeles are getting up at 7am, what are children in London and Sydney doing?



12. Andy wants to record some Christmas TV programmes that total 1 hour, but his hard disk is full. Which combination of programmes should he delete to get the nearest to 1 hour?

Programme	Duration	
Top Gear	12 Minutes	
Newsround	12 minutes	
Operations Ouch	27 minutes	
Danger Mouse	13 minutes	
Diddy TV	16 minutes	
Junior Bake Off	28 minutes	

Christmas Time Challenge



13. Fiona has bought a digital watch that shows the time in the 24-hour clock. Convert these times into the 12-hour clock to help her get used to it.

24 hour clock times			
14:00	23:59		
00:00	07:15		
18:37	22:20		
04:14	01:30		
19:27	15:15		
20.02	16:45		

Christmas Time Challenge



- 14. Guidelines for cooking a turkey are:
- Take out of the fridge 1 hour before cooking so it gets to room temperature;
- · Cook for 20 minutes per kg;
- Then cook for a further 90 minutes.

When should you take these turkeys out of the fridge to be cooked for 3pm?

a. 7kg

b. 9kg

c. 8.5kg

Christmas Time Challenge



15. Here are some world time zones:

Los Angeles	New York	London	Moscow	Sydney
- 8 hours	- 5 hours	GMT	+ 3 hours	+ 10 hours

People all over the world will celebrate their New Year at midnight on 31st December. What time is in in London when each of these other cities celebrates New Year?

Christmas Time Challenge Answers

1. Santa Express:

a. 1 hour 55 minutes

b. Leaving Denby Dale

c. 11:30am

2. Kaspar's Christmas Shopping:

a. 3 hours 20 minutes

b. 3:10pm

3. Kate's Recordings:

a. 935 seconds

b. 'We Wish You a Merry Christmas'

4. Ellie's Practice:

2 hour and 14 minutes

5. Mark's Jobs:

Mark would have to get up at 9.10am

Christmas Time Challenge Answers



6. Ice Skating Laps:

8. The Taylors' Travels:

a. 15.16 seconds

a. 2:24pm

b. 2.16 seconds

b. 3 hours 57 minutes

c. 16.06 seconds

9. Calendar Days:

7. Advert Breaks

a. Friday

Break 1 = 3 minutes 30 seconds

b. Saturday

Break 2 = 3 minutes 15 seconds

c. Thursdau

Break 3 = 3 minutes 40 seconds

d. Thursday

Christmas Time Challenge Answers



10. School Timetable:

Activity Order	Start Time	Finish Time
Registration and Puzzles	9:00am	9:25am
Party Hat Making	9:25am	10:10am
Playtime	10:10am	10:30am
Cracker Making	10:30am	11:20am
Card Making	11:20am	12:00pm
Christmas Dinner Time	12:00pm	1:00pm
Carol Concert	1:00pm	2:15pm
Extended Playtime	2:15pm	2:50pm
Collect cards, hats and get ready	2:50pm	3:10pm

Christmas Time Challenge Answers



11. Children around the world:

- a. New York = 7pm when children will be going to be. Sydney = 10am when children might be playing with new gifts after breakfast (or other similar activities).
- b. It will be 3pm in London. Children might be eating Christmas dinner or watching the Queen's speech (or other similar activities for that time of day). It will be 1am in Sydney on Boxing Day. Children will be asleep.

12. Deleting TV Programmes:

The two programmes that should be deleted to get the nearest to 1 hour are Junior Bake Off and Ouch Operations.

Christmas Time Challenge **Answers**



13. 24 and 12-hour Clock:

24 hour clock times	12 hour clock times
14:00 2:00pm	23:59 11:59pm
00:00 12:00 am	07:15 7:17am
18:37 6:37pm	22:20 10:20pm
04:14 4:14am	01:30 1:30am
19:27 7:27pm	15:15 3:15pm
20:02 8:02pm	16:45 4:45pm

Christmas Time Challenge **Answers**



14. Cooking Turkey:

- a. 10:10am
- b. 9:30am
- c. 9:40am

15. New Year Around the World

City	Time in London at their New Year
Los Angeles	8:00am
New York	5:00am
Moscow	9:00pm
Sydney	2:00pm