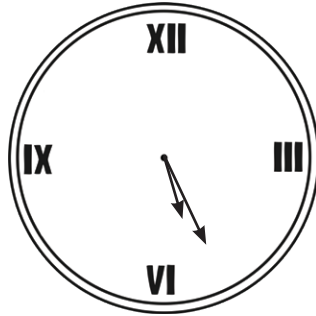
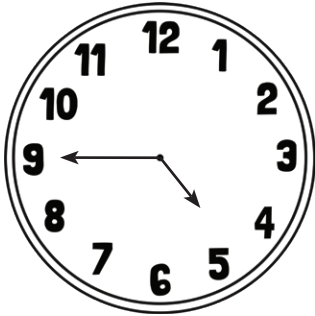


# Maths Practice Reasoning: Converting Between Units of Time

1. Here are two clocks. How much faster is the one on the right?



minutes

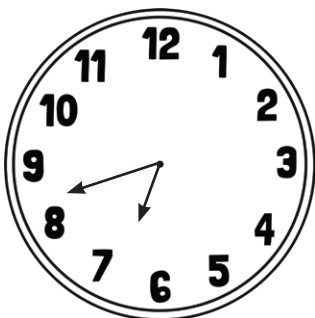
2. Stefan will be 10 on 14<sup>th</sup> December. His sister Marta was 6 on 20<sup>th</sup> August. What is the difference in ages between Stefan and Marta, giving the answer in years and months, to the nearest month?

years months

3. In a 4 x 400m relay race, the times for each runner were 50.3 seconds, 49.2 seconds, 51.4 seconds and 49.1 seconds. What was the total time in which the team ran the race, in minutes and seconds?

minutes seconds

4. Darrell needs to catch a train at 19:06. He looks at his watch. How long has he got before the train is due to depart?



minutes

5. School begins at 8.45 a.m. and ends at 3.20 p.m. each day.  
Calculate how long the school day is in hours and minutes.

hours	minutes
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6. The date is 23<sup>rd</sup> October. Keeva's birthday is shown on the calendar.  
How many days until his birthday?

October						
Mo	Tu	We	Th	Fr	Sa	Su
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

November						
Mo	Tu	We	Th	Fr	Sa	Su
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	1	2
3	4	5	6	7	8	9

days
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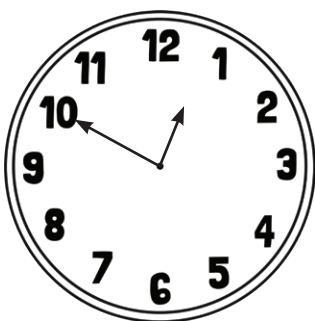
7. Elena and Osman are measuring the time taken for some ice to melt in different places.

Location	Time Takes to Melt
Playground	45 minutes 12 seconds
Classroom	28 minutes 43 seconds
Corridor	33 minutes 27 seconds

In minutes and seconds, what is the difference in the slowest and quickest time taken for the ice to melt.

minutes	seconds
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8. Tamara's watch is 17 minutes slow. What is the correct time?



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9. A film starts at 15:25 and lasts 132 minutes. What time will it finish?

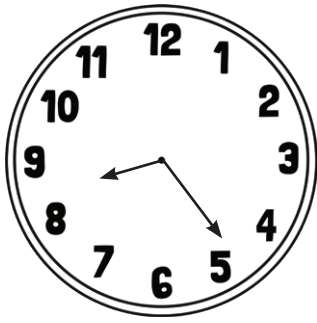
10. In 2017, a school will celebrate the 75th anniversary of it opening.  
In what year did it open?

11. A football match kicks off at 3 p.m, lasts 94 minutes, and has a 15 minute half time.  
What time does it end?

12. A swimmer swims 12 lengths of a swimming pool in 10 minutes and 36 seconds. On average, how long did each length take to swim?

13. A sleeper train is due to leave at 23:25 and arrive the following day at 07:17. It leaves 12 minutes late, but catches up time to arrive 3 minutes early. How long did the train take, in hours and minutes?

14. Rachel knows the clock in her kitchen is 7 minutes fast. Here is the clock.



She must be at school by 08:45 and it takes 12 minutes to get to school.  
How long before she must leave the house?

minutes

15. The world marathon record for women is held by Paula Radcliffe at 2 hours, 15 minutes and 25 seconds. Assuming a marathon is 40km, calculate, to the nearest second, how many seconds on average, Paula ran each 100m.

seconds

### Challenge

Use a closer approximation of 42km, calculating to the nearest tenth of a second.

seconds

# Maths Practice Reasoning: Converting Between Units of Time **Answers**

Question	Answer	Notes
1	43 minutes	Allow 42 - 44.
2	3 years 8 months	
3	3 minutes 20 seconds	
4	24 minutes	
5	6 hours 35 minutes	
6	25 days	do not count 23 <sup>rd</sup> October.
7	16 minutes and 29 seconds	
8	13:07 or 1:07	
9	17:37 or 5:37	
10	1942	
11	4.49 p.m. or 16:49	
12	53 seconds	
13	7 hours 37 minutes	
14	16 minutes	
15	20 seconds	time taken = 8125, $8125 \div 40 = 203.125$ seconds/km, which is 20.3125 seconds/100m
<b>Challenge</b>		
	19.3 seconds	