

### **Calculating speed, distance and time**

1. An aeroplane flies at 420 miles per hour for 45 minutes.  
Calculate the distance it has travelled. [3]
2. (a) Julian is going on holiday and has to be at the airport, 165km from his home, by 12.30pm. He leaves home at 9.30am and travels at an average speed of 60km/h.  
  
Does Julian arrive at the airport on time? Give a reason for your answer. [3]
- (b) Julian's friend leaves his home at 9.15am and arrives at the airport 2 hours and 15 minutes later. He has been travelling at an average speed of 70km/h.  
  
How far from the airport does Julian's friend stay? [2]
3. (a) A man travels a distance of 340 miles in his car. If the time taken for the journey is 5 hours 18 minutes, calculate his average speed for the journey to the nearest mile per hour. [3]
- (b) A woman travels 54 miles to her work.  
She leaves home at 0710 and arrives at her work at 0822.  
Calculate the average speed for her journey. [3]
- (c) A lorry driver travels at an average speed of 40 m.p.h. He has to complete a journey of 130 miles.  
  
How long will his journey take? [3]

**[17 marks]**

## Time Intervals

1. A plane going to Malta leaves Edinburgh Airport at 9.50 pm. The flight lasts 3 hours and 45 minutes.  
At what time does the plane land in Malta? [1]
2. A nurse started 'night – shift' at 9.45pm and finished at 7.30am the next morning.  
How long did her shift last? [1]
3. A sponsored dance started on Friday 13<sup>th</sup> May at 3.45 pm and ended at 2.15 pm on Sunday 15<sup>th</sup> May.
  - (a) How long did it last? [1]  
*Give your answer in hours.*
  - (b) Fiona's Mum sponsored her for 50p an hour.  
How much did her Mum have to give her? [2]
4. Reece is a salesman and has to be at a meeting in Edinburgh at 10.15am.  
He estimates that it will take him 1 hour 55 minutes to travel from his home to the meeting place.  
If he wants to be at the meeting place **at least** 25 minutes before the start time, when is the **latest time** he should leave home to go to his meeting? [2]
5. The timetable shows the times of both steam and diesel trains for the round trip to and from Sheringham on the North Norfolk Railway line.

	<i><b>Diesel</b></i>	<i><b>Steam</b></i>	<i><b>Diesel</b></i>	<i><b>Steam</b></i>	<i><b>Steam</b></i>
<b>Sheringham</b>	0910	1015	1145	1230	1430
<b>Weybourne</b>	0919	1025	1154	1240	1440
<b>Kelling Heath</b>	0922	–	1157	–	–
<b>Holt</b> <i><b>arr</b></i>	0929	1038	1204	1253	1453
<i><b>dep</b></i>	0941	1100	1216	1315	1515
<b>Kelling Heath</b>	0947	–	1222	–	–
<b>Weybourne</b>	0949	1112	1224	1327	1527
<b>Sheringham</b>	0958	1123	1233	1338	1538

- (a) How long does the diesel train take for the round trip? [2]
- (b) How much longer does the steam train take for the same trip? [3]

**[12 marks]**