



Q	Answer	Marks
1	The cost increases by £6 for each extra day of hire	1
2	There was already 20 cm of water in the tank at the start	1
3	a) £15 b) £3 c) £2 per mile d) £33	4
4	16 km/h	3
5	a) 40 km b) 35 miles c) 192 km	3
6	a) 4 cm b) 3 cm per minute c) 12 minutes	3
7	a) 30 minutes b) 40 km/h c) 30 km/h	3
8	a) 10.5 pints b) 8 litres	3
9	a) £8 b) 0.04: 4p per minute c) £34 d) 550 minutes	4
10	a) 2 cm per minute then 4 cm per minute; b) The wide part is at the bottom	3
11	a) 30 minutes b) 24 km/h c) 12 km/h d) 14.4 km/h	5
12	1) B 2) D 3) A 4) C	4
13	a) £12 per hour b) £132	3
14	a) 10.5 °C per minute b) 2.5 °C per minute c) It cools more slowly as it gets nearer room temperature	4
15	a) 8 m/s (accept 7 to 9) b) The curve is less steep at 2 seconds, so the gradient is smaller	3
16	a) £3 b) £1.50 c) £12	3
17	a) 0.2 b) Each unit of electricity used adds 20p to the bill	3
18	a) 90°C b) 40°C c) 35 minutes	3
19	a) 12:00 b) 40 km/h	4
20	About 2.5 metres per hour (accept 2 to 3)	4
21	a) 4.5 km/h b) 15:55 c) 1 hour 55 minutes	5
22	1.35 km	4

23	a) Straight line from (10:00, 0) to (11:00, 60), horizontal to (11:30, 60), straight line down to (13:00, 0) b) 13:00	5
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Full worked solutions, written out by hand, are on the solutions sheet for this topic.