



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) 3 km b) 30 minutes c) 6 km/h d) 15 km/h	4
4	a) 30 minutes b) 40 km/h c) 30 km/h	3
5	a) 8 m/s b) at a constant velocity of 8 m/s c) 6 seconds	3
6	a) line from (13:00, 0) to (14:00, 12), flat to (14:30, 12), line to (15:15, 0) b) 15:15	4
7	a) £12 per hour b) £132	3
8	a) £3 b) £1.50 c) £12	3
9	a) 70, 100, 130, 160 b) straight line from (0, 40) to (4, 160) c) 2.5 hours d) No, the line does not go through (0, 0)	4
10	a) A, because it is a straight line and it goes through (0, 0) b) $14.50 \div 10 = 1.45$ and $43.50 \div 30 = 1.45$, the same cost per litre c) £34.80	4
11	a) 90°C b) 40°C c) 35 minutes	3
12	a) 3 m/s^2 b) 576 m	3
EXTENSION QUESTIONS		
13	a) 2 m/s^2 b) 3 m/s^2 c) 180 m	5

Full worked solutions, written out by hand, are on the solutions sheet for this topic.