

Speed, Distance & Time: Hard Practice Paper 1 Answers

Q#	Answer	Explanation
1	B	The two parts take 1 hour and 2 hours, so the journey is 120 km in 3 hours, giving $120 \div 3 = 40$ km/h. It is not 45 km/h, because more time is spent at the slower speed.
2	C	The journey lasts 2 hours 30 minutes, which is 2.5 hours, so the distance is $80 \times 2.5 = 200$ km.
3	C	Together they close the gap at $60 + 40 = 100$ km each hour, so they meet after $300 \div 100 = 3$ hours.
4	C	108 km is 108 000 m and one hour is 3600 seconds, so the speed is $108\,000 \div 3600 = 30$ m/s.
5	C	The driving parts take $90 \div 45 = 2$ hours and $60 \div 60 = 1$ hour. Adding the 30 minute stop gives 3 hours 30 minutes.
6	B	The journey is $64 \times 2.5 = 160$ km. At 80 km/h it takes $160 \div 80 = 2$ hours, so 30 minutes is saved.
7	D	The speed is $400 \div 80 = 5$ m/s. In one hour that is $5 \times 3600 = 18\,000$ m, which is 18 km, so the speed is 18 km/h.
8	B	By 09:00 the cyclist is 12 km ahead. The car gains $36 - 12 = 24$ km each hour, so it needs $12 \div 24 = 0.5$ hours, catching up at 09:30.
9	B	The two parts take 0.5 hours and 1.5 hours, so the trip is 60 km in 2 hours, giving an average of $60 \div 2 = 30$ km/h.
10	D	The distances are 270 km and 80 km, making 350 km in 5 hours, so the average speed is $350 \div 5 = 70$ km/h.
11	D	From 23:40, adding 4 hours gives 03:40 the next day, and adding 55 more minutes gives 04:35.
12	C	In one hour the car travels 90 km, so in one minute it travels $90 \div 60 = 1.5$ km, which is 1500 m.
13	D	Walking takes $18 \div 5 = 3.6$ hours, which is 3 hours 36 minutes. Adding the 45 minute rest gives 4 hours 21 minutes, and 07:30 plus that is 11:51.

14	B	The gap closes at $70 + 80 = 150$ km each hour, so the time is $250 \div 150 = 5/3$ hours, which is 1 hour 40 minutes.
15	D	12 minutes is 0.2 of an hour, so the time is 4.2 hours and the distance is $50 \times 4.2 = 210$ km.