Speed, Distance & Time: Hard Practice Paper 4 Answers

Q#	Answer	Explanation
1	B	The parts take 0.5 hours and 1.5 hours, so the journey is 90 km in 2 hours, giving 90 ÷ 2 = 45 km/h.
2	D	They move apart at 8 + 12 = 20 km each hour, and 45 minutes is 0.75 hours, so the gap is 20 × 0.75 = 15 km.
3	D	In one hour the distance is 30 × 3600 = 108 000 m, which is 108 km, so the speed is 108 km/h.
4	C	From 12:37 to 14:37 is 2 hours, and from 14:37 to 15:22 is 45 more minutes, making 2 hours 45 minutes.
5	D	12 minutes is 0.2 of an hour, so the time is 5.2 hours and the speed is 468 ÷ 5.2 = 90 km/h.
6	C	By 10:00 the cyclist is 15 km ahead. The friend gains 25 − 15 = 10 km each hour, so it takes 15 ÷ 10 = 1.5 hours, catching up at 11:30.
7	C	The first part takes 30 ÷ 60 = 0.5 hours and the second takes 60 ÷ 40 = 1.5 hours, making 2 hours altogether.
8	B	The parts take 3 hours and 1 hour, so the journey is 240 km in 4 hours, giving 240 ÷ 4 = 60 km/h.
9	C	3 hours 20 minutes is 10/3 hours, so the distance is 720 × 10 ÷ 3 = 2400 km.
10	D	The whole train passes the post when it has moved its own length, so the speed is 200 ÷ 8 = 25 metres per second.
11	C	Each minute the car covers 35 ÷ 28 = 1.25 km, so in 60 minutes it covers 60 × 1.25 = 75 km.
12	C	The journey is 5 × 54 = 270 km, so at 90 km/h it takes 270 ÷ 90 = 3 hours.
13	D	From 05:48, adding 2 hours gives 07:48, and adding 37 more minutes gives 08:25.

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14	C	The last section takes 9 ÷ 18 = 0.5 hours, which is 30 minutes. Adding 1 hour 30 minutes, 20 minutes and 30 minutes gives 2 hours 20 minutes.
15	B	The gap closes at 60 + 50 = 110 km each hour, so they meet after 165 ÷ 110 = 1.5 hours, which is at 09:30.

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