Speed, Distance & Time: Hard Practice Paper 2 Answers

Q#	Answer	Explanation
1	B	The parts take 1 hour and 3 hours, so the ride is 48 km in 4 hours, giving 48 ÷ 4 = 12 km/h. Averaging the two speeds would wrongly give 16 km/h.
2	D	In one hour the distance is 25 × 3600 = 90 000 m, which is 90 km, so the speed is 90 km/h.
3	C	The journey takes 2 hours 45 minutes, which is 2.75 hours, so the speed is 220 ÷ 2.75 = 80 km/h.
4	B	The gap closes at 14 + 16 = 30 km each hour, so they meet after 60 ÷ 30 = 2 hours.
5	C	The journey is 3 × 70 = 210 km, so at 84 km/h it takes 210 ÷ 84 = 2.5 hours, which is 2 hours 30 minutes.
6	C	The parts are 45 × 40 ÷ 60 = 30 km and 60 × 20 ÷ 60 = 20 km, so the total is 30 + 20 = 50 km.
7	C	The first 3 km take 3 ÷ 12 = 0.25 hours, which is 15 minutes, and the next 3 km take 3 ÷ 9 = 1/3 hours, which is 20 minutes. Altogether that is 35 minutes.
8	C	The time available is 3 hours 30 minutes, which is 3.5 hours, so the speed needed is 245 ÷ 3.5 = 70 km/h.
9	C	By 10:30 train A is 30 km ahead. Train B gains 90 − 60 = 30 km each hour, so it needs 30 ÷ 30 = 1 hour, catching up at 11:30.
10	C	1 hour 45 minutes is 1.75 hours, so the distance is 240 × 1.75 = 420 km.
11	C	The first part takes 250 ÷ 100 = 2.5 hours and the remaining 150 km takes 150 ÷ 75 = 2 hours, making 4 hours 30 minutes.
12	C	2 minutes is 120 seconds, so the distance is 30 × 120 = 3600 m.
13	C	50 minutes is 50 ÷ 60 of an hour, so the distance is 6 × 50 ÷ 60 = 5 km.

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14	D	One hour is 3600 seconds, which is 3600 ÷ 40 = 90 lots of 40 seconds, so the train covers 90 km in an hour.
15	B	The distances are 90 km and 150 km, making 240 km in 4 hours, so the average speed is 240 ÷ 4 = 60 km/h.

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