

Speed, Distance & Time: Hard Practice Paper 5 Answers

Q#	Answer	Explanation
1	B	The walk takes 30 minutes and the run takes 15 minutes, so 6 km is covered in 45 minutes, which is 0.75 hours. The average speed is $6 \div 0.75 = 8$ km/h.
2	C	90 km is 90 000 m and one hour is 3600 seconds, so the speed is $90\,000 \div 3600 = 25$ m/s.
3	C	The two travelling parts take $150 \div 75 = 2$ hours and $90 \div 60 = 1.5$ hours. Adding the 25 minute wait gives 3 hours 55 minutes.
4	C	The parts take 2 hours and 3 hours, so the journey is 360 km in 5 hours, giving $360 \div 5 = 72$ km/h.
5	C	They move apart at $55 + 65 = 120$ km each hour, so the time is $300 \div 120 = 2.5$ hours, which is 2 hours 30 minutes.
6	C	From 16:42 to 19:42 is 3 hours, and from 19:42 to 20:15 is 33 more minutes, making 3 hours 33 minutes.
7	C	8 minutes is 480 seconds, so the speed is $2400 \div 480 = 5$ metres per second.
8	C	4 hours 30 minutes is 4.5 hours, so the speed is $315 \div 4.5 = 70$ km/h.
9	C	The two travelling parts take $96 \div 64 = 1.5$ hours and $40 \div 80 = 0.5$ hours. With the 15 minute stop the total is 2 hours 15 minutes, and 07:20 plus that is 09:35.
10	C	The time is $8 \div 20 = 0.4$ hours, and $0.4 \times 60 = 24$ minutes.
11	C	108 km/h is $108\,000 \div 3600 = 30$ m/s, so in 15 seconds the car travels $30 \times 15 = 450$ m.
12	C	The outward walk takes $3 \div 4 = 0.75$ hours, which is 45 minutes, and the return takes $3 \div 6 = 0.5$ hours, which is 30 minutes, making 1 hour 15 minutes.

13	D	By 09:30 the lorry has travelled $1.5 \times 45 = 67.5$ km. The car gains $75 - 45 = 30$ km each hour, so it needs $67.5 \div 30 = 2.25$ hours, catching up at 11:45.
14	D	Three quarters of 200 km is 150 km, so 50 km is left. Covering 50 km in half an hour needs $50 \div 0.5 = 100$ km/h.
15	D	24 minutes is 0.4 of an hour, so the time is 2.4 hours and the distance is $75 \times 2.4 = 180$ km.