Speed, Time and Distance

Q1. The Hogwarts Express travels 650 km in 5 hours and another 940 km in 10 hours. What is the average speed of the train?

A. 112 kmph
B. 168 kmph
C. 106 kmph
D. 126 kmph

Q2. Two trains having lengths of 140 m and 160 m run at the speeds of 60 km/hr and 40 km/hr respectively in opposite directions (on parallel tracks). The time which they take to cross each other, is

A. 3 sec
B. 9.8 sec
C. 54 sec
D. 10.8 sec

Q3. A train 125 m long passes a man, running at 5 km/hr in the same direction in which the train is going, in 10 seconds. The speed of the train is:

A. 45 kmph
B. 50 kmph
C. 54 kmph
D. 55 kmph

Q4. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is:

A. 200 m
B. 225 m
C. 245 m
D. 250 m

Q5. A train crosses a man in 9 seconds. The same train crosses a 240-metre-long platform in 24 seconds. What is the time taken by the train to cross another train of 256 m length moving at 12 m/sec in the same direction?

A. 16 sec
B. 50 sec
C. 144 sec
D. 100 sec

Q6. The Alpha Express left Pune for Mumbai at noon sharp. Two hours later, the Deccan Queen started from Pune in the same direction. The Deccan Queen overtook the Alpha Express at 8 p.m. Find the average speed of the two trains over the journey if the sum of their average speeds is 70 kmph.

A. 35 kmph
B. 34.28 kmph
C. 50 kmph
D. 12 kmph

Q7. Two trains for Mumbai leave Delhi at 6 a.m. and 6:45 a.m. and travel at 100 kmph and 136 kmph respectively. How many kilometers from Delhi will the two trains be together?

A. 272 km
B. 260 km
C. 283.33 km
D. 262.4 km

Q8. Lonavala and Khandala are two stations 600km apart. A train starts from Lonavala and moves towards Khandala at the rate of 25km/h. After 2 hours, another train starts from Khandala at the rate of 35km/h. How far from Lonavala will they cross each other?

A. 250 km
B. 300 km
C. 279.166 km
D. 475 km

Q9. Two trains A and B start simultaneously in the opposite directions from two points X and Y respectively and arrive at their destinations 9 and 4 hours respectively after meeting each other. At what rate does the second train B travel if the first train travels at 80 km per hour?

A. 60 kmph
B. 100 kmph
C. 120 kmph
D. 80 kmph

Q10. Walking at 3/4 of his normal speed, Gandalf is 16 minutes late reaching his office. The usual time taken by him to cover the distance between his home and his office is

A. 48 minutes
B. 60 minutes
C. 42 minutes
D. 62 minutes

Q11. Sam and Frodo travel the same distance at the rate of 6 km per hour and 10 km per hour respectively. If Sam takes 30 minutes longer than Frodo, the distance travelled by each is:

A. 6 km
B. 10 km
C. 7.5 km
D. 20 km

Q12. Harry beats Ron by 30 metres or 10 seconds. How much time was taken by Harry to complete the race of 1200 metres?

    A. 6 min 40 sec   B. 3 min 15 sec   C. 12 min 10 sec   D. 6 min 30 sec

Q13. Without stoppages a train travels a certain distance with an average speed of 50 km/h and with stoppages it covers the same distance with an average speed of 40 km/h. How many minutes per hour does the train stop?

    A. 10 min/h   B. 15 min/h   C. 12 min/h   D. 8 min/h

Q14. Tyrion, during his journey, travels for 20 minutes at a speed of 30 kmph, another 30 minutes at 50 kmph, and 1 hour at 50 kmph and another hour at 60 kmph. What is his average speed?

    A. 51.18 kmph   B. 63 kmph   C. 39 kmph   D. 48 kmph

Q15. A car travels from A to B at V_1 km/hr, travels back from B to A at V_2 km/hr and again goes back from A to B at V_2 km/hr. The average speed of the car is:

    A. $2V_1V_2/(V_1+2V_2)$ B. $2V_1V_2/(2V_1+V_2)$ C. $3V_1V_2/(2V_1+V_2)$ D. $3V_1V_2/(V_1+2V_2)$

Q16. Shinchan walking at a speed of 20km/h reaches his college 10 min late. Next time he increases his speed by 5 km/h, but finds that he is still late by 4 min. What is the distance of his college from his home?

    A. 20 km   B. 6 km   C. 12 km   D. None of these

Q17. Sansa goes to office at a speed of 6 kmph and returns to her home at the speed of 4 kmph. If she takes 10 hours in all, what is the distance between her office and her home?

    A. 24 km   B. 12 km   C. 10 km   D. 30 km

Q18. Bruce covers a distance in 40 minutes if he drives at a speed of 60 kmph on an average. Find the speed at which he must drive at to reduce the time of the journey by 25%.

    A. 60 kmph   B. 70 kmph   C. 75 kmph   D. 80 kmph

Q19. A railway passenger counts the telegraph poles on the rail road as he passes them. The poles are at a distance of 50 metres. What will be his count in 4 hours, if the speed of the train is 45 kmph?

    A. 600   B. 2500   C. 3600   D. 5000

Q20. A boat goes 15 km upstream in 80 min. The speed of the stream is 5 km/h. The speed of the boat in still water is

    A. 6.25 kmph   B. 16.25 kmph   C. 15 kmph   D. 17 kmph

Q21. A boat rows 16 km up the stream and 30 km downstream taking 5 hours each time. The speed of the current is

    A. 1.1 kmph   B. 1.2 kmph   C. 1.4 kmph   D. 1.5 kmph

Q22. A motorboat went downstream for 28km and immediately returned. It took the boat twice as long to make the return trip. If the speed of the river flow were twice as high, the trip downstream and back would take 672 mins. Find the speed of the boat in still water and the speed of the river flow.

    A. 9 kmph, 3 kmph   B. 9 kmph, 6 kmph   C. 8 kmph, 2 kmph   D. 12 kmph, 3 kmph

Q23. A man goes downstream at x km/h and upstream at y km/h. The speed of the boat in still water is

    A. 0.5(x+y)   B. 0.5(x-y)   C. x+y   D. x-y