

EduSahara<sup>™</sup> Assignment

Name : Relative Speed Concepts Chapter : Time and Distance Grade : ICSE Grade VIII License : Non Commercial Use

1. In how much time will a train A of length 263.68 m travelling at a speed of 12.97 m/sec will cross another train B of length 183.63 m travelling in the same direction at a speed of 4.75 m/sec?

(i) 54.42 sec (ii) 55.42 sec (iii) 52.42 sec (iv) 53.42 sec (v) 56.42 sec

In how much time will a train A of length 361.22 m travelling at a speed of 18.42 m/sec will cross another train B of length 201.98 m travelling in the opposite direction at a speed of 4.54 m/sec?

(i) 24.53 sec (ii) 22.53 sec (iii) 23.53 sec (iv) 25.53 sec (v) 26.53 sec

3. In how much time will a train of length 462.39 m travelling at a speed of 15.95 m/sec crosses a man riding a cycle in the same direction at a speed of 5.83 m/sec?

(i) 47.69 sec (ii) 46.69 sec (iii) 45.69 sec (iv) 44.69 sec (v) 43.69 sec

4. In how much time will a train of length 236.76 m travelling at a speed of 12.16 m/sec crosses a man riding a cycle in the opposite direction at a speed of 3.57 m/sec?

(i) 13.05 sec (ii) 15.05 sec (iii) 17.05 sec (iv) 16.05 sec (v) 14.05 sec

- 5. A motor boat can move at a speed of 22.54 m/sec in still water. If it goes upstream for 78.86 sec, it travels a distance of 1455.00 m. What is the speed of the stream?
  - (i) 5.09 m/sec (ii) 6.09 m/sec (iii) 2.09 m/sec (iv) 3.09 m/sec (v) 4.09 m/sec
- 6. A motor boat can move at a speed of 3.97 m/sec in still water. If it goes downstream for 452.31 sec, it travels a distance of 3433.00 m. What is the speed of the stream?
  - (i) 2.62 m/sec (ii) 5.62 m/sec (iii) 1.62 m/sec (iv) 3.62 m/sec (v) 4.62 m/sec
- 7. A motor boat can travel at a speed of 15.99 m/sec downstream and 3.37 m/sec upstream. What is the speed of the motor boat in still water?
  - (i) 10.68 m/sec (ii) 8.68 m/sec (iii) 7.68 m/sec (iv) 9.68 m/sec (v) 11.68 m/sec
- 8. A motor boat can travel at a speed of 16.03 m/sec downstream and 0.35 m/sec upstream. What is the speed of the stream?
  - (i) 5.84 m/sec (ii) 8.84 m/sec (iii) 6.84 m/sec (iv) 9.84 m/sec (v) 7.84 m/sec
- 9. A motor boat can travel at a speed of 13.15 m/sec downstream and 2.37 m/sec upstream. How much distance can the boat travel in 47.51 sec in still water?

(i) 370.68 m (ii) 366.68 m (iii) 369.68 m (iv) 368.68 m (v) 367.68 m

- 10. A motor boat can travel at a speed of 48.30 m/sec downstream and 33.92 m/sec upstream. How much time will it take to cross a distance of 508.94 m in still water?
  - (i) 10.38 sec (ii) 14.38 sec (iii) 12.38 sec (iv) 13.38 sec (v) 11.38 sec

The speed of a motor boat is 24.44 m/sec and the speed of a stream is 11.06 m/sec. A & B are two location 11. adjacent to a stream. If it takes 389.61 sec to go from point A to B and come back, What is the distance between A and B?

(i) 3788.02 m (ii) 3787.02 m (iii) 3785.02 m (iv) 3786.02 m (v) 3784.02 m

The speed of a motor boat is 25.96 m/sec and the speed of a stream is 16.39 m/sec. A & B are two location 12. adjacent to a stream. If the distance between A and B is 3291.00 m, how much time will it take to go from A to B and back to A?

(i) 420.60 sec (ii) 423.60 sec (iii) 419.60 sec (iv) 422.60 sec (v) 421.60 sec

The distance between two places X and Y is 153.74 m. Two persons A and B start simultaneously at X and Y at 13. speeds of 12.03 m/sec and 11.26 m/sec respectively. Find when they meet each other if they are travelling in same direction.

(i) 201.66 sec (ii) 199.66 sec (iii) 197.66 sec (iv) 200.66 sec (v) 198.66 sec

The distance between two places X and Y is 425.44 m. Two persons A and B start simultaneously at X and Y at 14. speeds of 14.12 m/sec and 9.16 m/sec respectively. Find when they meet each other if they are travelling in opposite direction.

(i) 18.27 sec (ii) 16.27 sec (iii) 17.27 sec (iv) 19.27 sec (v) 20.27 sec

The distance between two places X and Y is 415.38 m. Two persons A and B start simultaneously at X and Y at 15. speeds of 26.39 m/sec and 13.37 m/sec respectively. Find the meeting point away from X where they meet each other if they are travelling in same direction.

(i) 842.93 m (ii) 843.93 m (iii) 841.93 m (iv) 839.93 m (v) 840.93 m

The distance between two places X and Y is 276.79 m. Two persons A and B start simultaneously at X and Y at 16. speeds of 9.31 m/sec and 8.96 m/sec respectively. Find the meeting point away from X where they meet each other if they are travelling in opposite direction.

(i) 141.05 m (ii) 139.05 m (iii) 140.05 m (iv) 143.05 m (v) 142.05 m

17. In a 3500 m race, A beats B by 603.37 m and C by 1590.76 m. In a 2000 m race, by how much distance does B beat C?

(i) 563.22 m (ii) 564.22 m (iii) 565.22 m (iv) 566.22 m (v) 562.22 m

'P' and 'Q' are at a distance of 440.00 km apart. 'A' starts from 'P' at 08:11 AM and reaches 'Q' at 01:08 PM. 'B'
18. starts from 'Q' at 00:32 PM and reaches 'P' at 08:28 PM. Find the distance between point P and the point where they overtake each other.

(i) 417.77 km (ii) 419.77 km (iii) 421.77 km (iv) 420.77 km (v) 418.77 km

'P' and 'Q' are at a distance of 430.00 km apart. 'A' starts from 'P' at 08:14 AM and reaches 'Q' at 00:53 PM. 'B' starts from 'Q' at 10:43 AM and reaches 'P' at 06:37 PM. At what time they overtake each other?

(i) 00:35 PM (ii) 01:05 PM (iii) 11:05 AM (iv) 00:05 PM (v) 11:35 AM

Assignment Key						
1) (i)	2) (i)	3) (iii)	4) (ii)	5) (v)	6) (iv)	
7) (iv)	8) (v)	9) (iv)	10) (iii)	11) (iv)	12) (v)	
13) (ii)	14) (i)	15) (iii)	16) (i)	17) (ii)	18) (ii)	
19) (iv)						

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