

WORD PROBLEMS

CANSU OLCE

A STAR MATHS (www.astarmaths.com.au)

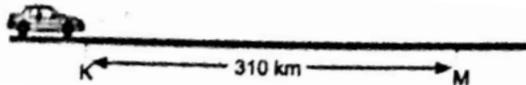
1. What is the speed of a car in km/h that travels a distance of 300 km in 6 hours?

2. A car that travels a distance in 4 hours at a speed of $(V+30)$ km/h covers the same distance in 6 hours at $(V+10)$ km/h. What is V ?

3. A vehicle takes 4 hours to travel from town A and B. If the speed was slower by 18 km/h, it would travel the same distance in 7 hours. What is the distance between A and B in km?

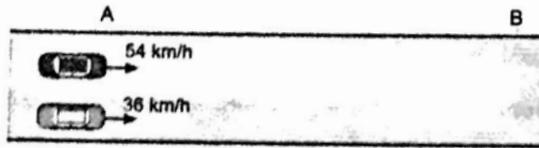
4. A car travels from town A to B in 12 hours at a speed of V km/h. If its average speed was $V/3$ km/h for the first half of the distance and $3V$ km/h for the rest, how many hours would the whole trip take?

5.



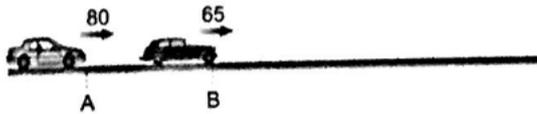
The towns K and M are 310 km apart. A car departing from K travels 4 hours at a certain speed. It then increases its speed by 10 km/h and arrives at M in 3 hours. What is its initial speed in km/h?

6.



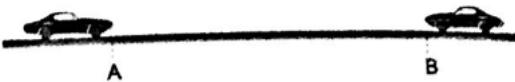
Two cars start from point A towards B at 54 km/h and 36 km/h. The faster one arrives B four hours earlier. How many hours does it take the slower one to arrive B?

7.



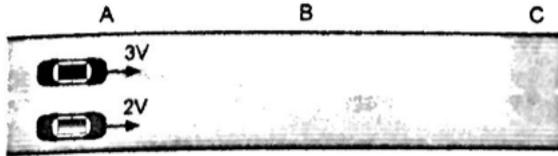
Two cars start from points A and B at the same time and in the same direction. The one starting from A moves at 80 km/h and the other 65 km/h. If the faster one catches up with the slower one in 4 hours, what is the distance between A and B in km?

8.



The points A and B are 720 km apart. If two cars from each point start at the same time and move towards each other, they meet in 4 hours. If they move in the same direction, one catches up with another in 24 hours. How fast is the slower car in km/h?

9.



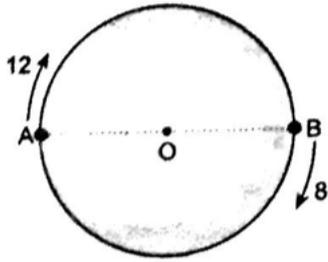
Two vehicles at speeds $3V$ km/h and $2V$ km/h start moving from A towards C at the same time. The faster one arrives at c and travels back without pause and meets the slower one at B. If $|AB|=60$ km, what is $|AC|$ in km?

10. A vehicle travels a certain distance at 90 km/h and comes back to the starting point at 60 km/h. What is its overall average speed in km/h?

11. How long is a train in metres that takes 3 minutes to pass through a 2.7 km long tunnel at 60 km/h?

12. Two cyclists start from point A on a circular track in the same direction and at the same at 16 km/h and 24 km/h. If they come side by side for the first time 5 hours later, what is the circumference of the track in km?

13.



The circular track with a circumference of 80 km is centered at O. Two vehicles start moving from point A and point B in the directions shown in the figure at 12 km/h and 8 km/h, respectively. How many hours does it take the faster one to catch up with the slower one?

14. A boat moving downstream on a river travels a distance of 240 km in 6 hours. It returns in 12 hours moving upstream. What is its speed in km/h?

15. An athlete running 160 m wins the race, finishing 10 m ahead of the second and 25 m ahead of the third. How many metres ahead of the third one will the second one finish the run?
(Assume that the athletes run at constant speed.)

ANSWER KEY

1. 50
2. 30
3. 168
4. 20
5. 40
6. 12
7. 60
8. 75
9. 75
10. 72
11. 300
12. 40
13. 10
14. 30
15. 16

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