



PERSONALITY DEVELOPMENT ASSOCIATION

MADRAS INSTITUTE OF TECHNOLOGY

ANNA UNIVERSITY – CHENNAI

Aptitude class No.:05

TIME AND DISTANCE

Date:19.09.2016

FORMULAE:

Speed =Distance/Time

1 km/hr = 5/18 m/sec

1m/sec = 18/5 km/hr

Average speed = $2xy/(x+y)$

QUESTIONS:

1. I travelled from Madurai to Chennai in 8 hours which is 400km apart.What was my speed in km/hr?
2. Ram can cover a certain distance in 1 hr 24 mins by covering two-third of the distance at 4km/hr and the rest at 5 km/hr.Find the total distance.

Average Speed

3. A car moves from 'A' to 'B' and 'B' to 'A' in two different speeds of 40km/hr and 60 km/hr respectively.Find average speed during journey?
4. A person travelled by train for 1 hr at a speed of 50km/hr.He then travelled by a taxi for 30 mins at a speed of 32 km/hr to complete a journey.What is the average speed?
5. A man travels 28 km at 7 km/hr, next 16 km at 4 km/hr and remaining 6 km at 3 km/hr.Find his average speed?

Walking and Riding

6. A man takes 8 hours in waking to a certain place and riding back.He could have gained 2 hours by riding both ways.What time would he take to walk both ways?
7. A woman takes 6 hours 15 mins in walking to a certain place and riding back.She took 7 hours 45 mins by walking both ways.What time would she take to ride both ways?

Relative Speed

8. If two students starting from same point,walking in the opposite directions with 6 km/hr and 9 km/hr as average speeds respectively.Then the distance between them after 4 hours is?
9. Two cars A and B are running towards each other from two different places 88 km apart.If the ratio of the speeds of the cars A and B is 5:6 and the speed of the car B is 90 km/hr,at what time will the two meet each other?

10. A theft is reported to a policeman. The thief starts running and the police chase him. When the police start chasing, the thief was 250 m far. Thief's speed is 8 km/hr and police's speed is 9 km/hr. Find the time the police will catch the thief?

M-Fomula

11. If I walk at 4 km/hr, I reach the office 5 mins late, and if I walk at 5 km/hr, I reach 10 mins early. How far my office is?

12. A man covers a certain distance by car driving at 5 km/hr; he is late by 5 mins. However with a speed of 6 km/hr, he reaches on time. Find distance?

13. A train travelling 25 km/hr leaves Delhi to Chennai at 9.00 am another train with speed 35 km/hr starts at 2.00 pm in the same direction. How many km from Delhi will they meet?

a/b ->speed

14. Walking $\frac{3}{4}$ of his usual speed, a person is 10 mins late to his office. Find his usual time to cover the distance.

15. Running $\frac{4}{3}$ of his usual speed, a person improving his timing by 10 mins. Find the usual time to cover the distance.

DISCOVER THYSELF