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Sample Basic Mathematics Questions Competitive Exams

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1. Two trains start at the same time from Mumbai and Chennai respectively, towards each other. After passing each other, they take 12 hours and 3 hours to reach Chennai and Mumbai respectively. If the Mumbai Mail is moving at the speed of 48 km/h, the speed of the Chennai Mail is
 - a. 24 km/h
 - b. 22 km/h
 - c. 21 km/h
 - d. 96 km/h
2. Walking at $\frac{3}{4}$ of his normal speed, A is 16 minutes late in 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
3. A and B travel the same distance at the rate of 6 km per hour and 10 km per hour respectively. If A takes 30 minutes longer than B, the distance travelled by each is
 - a. 6 km
 - b. 10 km
 - c. 7.5 km
 - d. 20 km
4. Roy travels a certain distance by car at the rate of 12 km/h and walks back at the rate of 3 km/h. The entire journey took 5 hours. Find out the distance covered by the car.
 - a. 12 km
 - b. 30 km

- c. 15 km
- d. 6 km
5. Without stoppage, a bus travels a certain distance at an average speed of 60 km/h, and with stoppage, it covers the same distance at an average speed of 40 km/h. On an average, how many minutes per hour does the bus stop during the journey?
- a. 20 min/h
- b. 15 min/h
- c. 10 min/h
- d. 5 min/h
6. A goes to college at a speed of 6 km/h and returns to her home at a speed of 4 km/h. If she takes 10 hours in all, what is the distance between her college and her home?
- a. 24 km
- b. 12 km
- c. 10 km
- d. 30 km
7. A cracked two crackers from the same place at an interval of 12 minutes but B sitting in a bus approaching the place hears the second report 11 minutes 30 seconds after the first. What is the approximate speed of the bus (if sound travels at the speed of 330 metres per second) ?
- a. $\frac{660}{23}$ m/s
- b. $\frac{220}{7}$ m/s
- c. $\frac{330}{23}$ m/s
- d. $\frac{110}{23}$ m/s
8. A motor boat sails down the river for 10 km and then up the river for 6 km. The speed of the river flow is 1 km/h. What should be the minimum speed of the motor boat for the trip to take a maximum of 4 hours?
- a. 2 kmph
- b. 3 kmph
- c. 4 kmph
- d. 5 kmph

9. A Maruti van takes 2 hrs. Less for a journey of 300 kilometres if its speed is increased by 5 kmph over its usual speed. Find the usual speed of the Maruti van.
- a. 10 kmph
 - b. 12 kmph
 - c. 20 kmph
 - d. 25 kmph
10. Deba starts from a point that is on the circumference of a circle, moves 600 m towards the North and then again moves 800 m East and reaches a point diametrically opposite the starting point. What is the diameter of the circle?
- a. 1000 m
 - b. 500 m
 - c. 800 m
 - d. 900 m

Answers

- 1. a
- 2. a
- 3. c
- 4. a
- 5. a
- 6. a
- 7. c
- 8. c
- 9. d
- 10. a