

Read the following case study and answer the questions:

Amit travels from his home to school every day, a distance of 18 km. He usually goes by cycle at a speed of 9 km/h. One day, he left late and increased his speed to reach school on time.

- Q1. How long does Amit normally take to reach school?
- Q2. If he increased his speed to 12 km/h, how much time would he take?
- Q3. One day while coming to school he met his friends on the way. All of them together cycled at 12 km/h and took a long route of 24 km. How long did they take to reach their school?
- Q4. If Amit traveled 5 km at a speed of 10 km/h and then the remaining 13 km at a different speed of 13 km/h. Calculate the total time taken by him to reach his school.
- Q5. If Amit leaves for school at 8:00 am and reaches at 9:30 am in school ~~coming~~ travelling at a speed of 11 km/h, how much distance did he travel? Is it more or less than the distance he usually travels, and by how much?

- ① A cyclist covers 48 km in 3 hours and 60 km in 4 hours. What is the average speed?
- ② How many minutes will it take to travel 30 km at a speed of 40 km/h?
- ③ A car travels 180 km in 3 hours and then 150 km in 2 hours. What is the average speed for the entire journey?
- ④ Arun moves with a speed of 9 km/h by a cycle and covers 18 km. He then increases his speed to 12 km/h and covers 24 km. Calculate the total time taken by him in the journey.
- ⑤ Seema and Reema participate in a race of 200 m. Seema runs at a speed of 10 m/s and Reema completes the race in 40 seconds. Who runs faster? Calculate Reema's speed in the race.