

Name _____



Road Trip Remix

Key ideas

Average speed = Total distance \div Total time

Distance = Speed \times Time

Be sure to include all stops or breaks in total time if asked for overall averages.

Part A: Travel Segments with Different Speeds

1. The family drives 120 km on local roads at 60 km/h, then 180 km on the highway at 90 km/h. What is the total travel time and average speed?
2. On another day, they drive 80 km at 50 km/h, stop for 30 minutes, and then continue 120 km at 80 km/h. What is the total time for the journey, including the stop?
3. The family covers 240 km at 80 km/h but faces a 30-minute traffic delay. What is the overall average speed for the trip?

Part B: Including Rest Breaks

4. During a long day of driving, the family travels 300 km in 4 hours, rests for 1 hour, then drives 200 km in 2 hours. What is their average speed for the entire day, including the rest?
5. On another leg of the trip, they travel 150 km at 75 km/h, rest for 15 minutes, then continue 150 km at 100 km/h. Find the total travel time and overall average speed.
6. The family drives 400 km in 6 hours, including two 30-minute breaks. What was their average driving speed (not counting breaks)? What was their overall average speed including breaks?

Part C: Mixed Scenarios

7. They drive 100 km through the mountains at 50 km/h, then 150 km on the plains at 100 km/h, then 50 km through city traffic at 25 km/h. What is their total travel time and average speed?
8. On a 500 km route, the first 300 km are traveled at 75 km/h and the remaining 200 km at 50 km/h. What is the total time and the average speed?
9. A 360 km drive includes two segments of equal length: the first half at 60 km/h and the second half at 120 km/h. What is the average speed for the full trip?

Part D: Challenge

10. A car drives 300 km at 100 km/h, stops for 30 minutes, and then drives another 150 km at 75 km/h. Find the overall average speed for the trip.