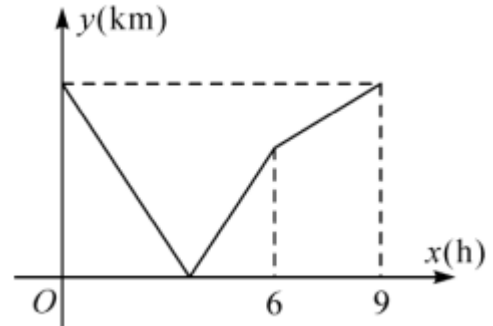


2025 August AMC 10 Week 2 Day 2 - Distance Word Problems 2

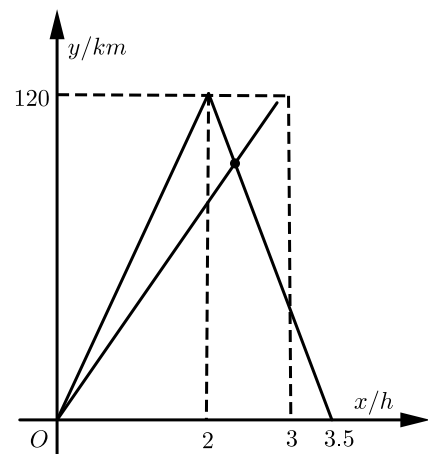
- 1 After its speed was increased, a certain train departed from City A at 21:00 and arrived punctually at City B at 07:00 the next day. Its travel time was 2 hours shorter than before the speed increase, and its average speed was 20 km/h faster than before. What is the distance between the two cities (in km)?
- A. 800 B. 1000 C. 1200 D. 1400 E. 1500
- 2 Person A starts walking from A to B , and 5.5 minutes later, Person B starts walking from B to A . Person B walks 30 meters per minute faster than Person A . They meet at point C along the way. The time taken by Person A to travel from A to C is 4 minutes longer than from C to B . The time taken by Person B to travel from C to A is 3 minutes longer than from B to C . What is the distance between A and B in meters?
- A. 1080 B. 1440 C. 1250 D. 1880 E. 2140
- 3 The research vessel Xuelong carried out a scientific expedition to Antarctica. Departing from Shanghai at its maximum speed of 19 knots (1 knot = 1 nautical mile per hour), it would take more than 30 days to reach Antarctica. This time, the vessel departed from Shanghai at a speed of 16 knots and, after a certain number of days, successfully arrived at its destination. It then worked in the polar region for a certain number of days before returning at a speed of 12 knots. On the 83rd day after leaving Shanghai, due to weather conditions, its sailing speed dropped to 2 knots. Two days later, it continued at a speed of 14 knots for another 4 days to return to Shanghai. How many days did the Xuelong work in Antarctica?
- A. 1 B. 2 C. 3 D. 4 E. 5
- 4 An express train departs from City A toward City B , while a slow train departs from City B toward City A . Both trains depart at the same time and stop upon reaching their destinations.

Let the travel time of the slow train be x hours, and let the distance between the two trains be y km. The relationship between y and x is shown in the figure. If the two trains meet at a point that is 27 km away from the midpoint between A and B , then what is the distance between A and B ?



- A. 270km B. 280km C. 290km D. 300km E. 310km

- 5 A car and a truck depart from City A toward City B at the same time. After reaching City B , the car immediately returns to City A at a different speed, while the truck stops after reaching City B . The graphs shown represent the relationship between the distance y (in km) from City A and the travel time x (in hours) for the truck and the car, respectively. When the car is returning from City B to City A and meets the truck along the way, what is the distance from City A to the meeting point?



- A. $\frac{280}{3}$ km B. 70 km C. $\frac{7}{3}$ km D. 90 km E. $\frac{70}{3}$ km