

2025 August AMC 8 Week 2 Day 1 - Distance Word Problems

- 1 Place A and Place B were 71 km apart. Calvin and Yvonne departed from the two places respectively and travelled towards each other. Calvin started his journey 20 minutes later than Yvonne, but he travelled 3 km/h faster than Yvonne. They met two hours after Calvin departed from Place A . Calvin travelled at () km/h .

A. 14 B. 16 C. 18 D. 20 E. 22

- 2 A car travels from City A to City B . If its speed is increased by 20% , it can arrive one hour earlier than the originally planned time. If it travels 120 kilometers at the original speed and then increases its speed by 25% , it can arrive 40 minutes earlier. What is the distance between City A and City B in kilometers?

A. 260 B. 270 C. 280 D. 290 E. 300

- 3 Henry and Leslie are practicing shuttle runs between points A and B on the playground. Henry runs at a speed of 8 meters per second, and Leslie runs at 5 meters per second. They start at the same time from point A , run to point B , and then return. It is known that at their second head-on meeting, the meeting point is 5 meters away from the midpoint of AB . What is the distance between A and B in meters?

A. 140 B. 150 C. 125 D. 130 E. 135

- 4 At $8:37$ in the morning, Yan leaves home on foot to go to school. Three minutes later, the dog starts running to chase him and catches up with him 200 meters from home. After catching up, the dog immediately runs back home, then immediately heads out again to chase Yan, catching him a second time 400 meters from home. After this second catch-up, the dog immediately runs back home again, then immediately heads out to chase Yan once more, and this time catches him exactly at the school. What time does Yan arrive at school?

A. 8 : 57 a.m.

B. 9 : 00 a.m.

C. 8 : 55 a.m.

D. 8 : 50 a.m.

E. 8 : 40 a.m.

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Point B is to the east of point A . Addy and Brandon start simultaneously from A and B respectively, both moving east at a constant speed. A dog starts from point A at the same time as Addy, running back and forth between them (i.e., running from Addy toward Brandon, turning around after catching up with Brandon to run toward Addy, meeting Addy and then turning around again toward Brandon, and so on). When the dog returns to Addy for the first time, Addy has traveled exactly 140 meters. When the dog returns to Addy for the second time, Addy has traveled a total of 350 meters. If the dog's speed is 3 times the speed of Brandon, then when the dog catches up with Brandon for the third time, what is the distance between A and B ?

A. 1000 meters

B. 1080 meters

C. 500 meters

D. 800 meters

E. 10000 meters