Distance Problems – Day 4
Unit 5: Real World Applications

Solve each question. Round your answer to the nearest hundredth when needed.

1. A passenger train left Washington and traveled toward Johannesburg at an average speed of 45 km/h. A freight train left sometime later traveling in the opposite direction with an average speed of 70 km/h. After the passenger train had traveled for 18 hours the trains were 2000 km apart. Find the number of hours the freight train traveled.

2. Eduardo left Aliyah's house and drove north at an average speed of 20 mph. Nicole left sometime later driving in the opposite direction with an average speed of 40 mph. After Eduardo had driven for six hours, they were 360 miles apart. How long did Nicole drive?

3. Lea left the hardware store driving toward the mountains three hours before Shanice. Shanice drove in the opposite direction going 20 mph faster than Lea for two hours after which time they were 355 miles apart. Find Lea's speed.

4. A passenger plane left Paris and flew south at an average speed of 409 mph. A jet left 7.4 hours later and flew in the opposite direction with an average speed of 270 mph. Find the number of hours the jet needs to fly before the planes are 4520.4 miles apart.

5. Kristin left the mall and drove toward the ferry office at an average speed of 32.6 km/h. Kali left 4.5 hours later and drove in the opposite direction with an average speed of 48.8 km/h. How long does Kali need to drive before they are 228.1 km apart?

6. Emily left the airport driving north 1.9 hours before John. John drove in the opposite direction going 20.4 mph faster than Emily for 2.1 hours after which time they were 241.7 miles apart. What was Emily's speed?

7. DeShawn made a trip to his friend's house and back. On the trip there he drove 60 mph and on the return trip he went 80 mph. How long did the trip there take if the return trip took three hours?

8. An aircraft carrier traveled to dry dock and back. It took one hour longer to get there than it did to come back. The average speed on the trip there was 15 km/h. The average speed on the way back was 20 km/h. How many hours did the trip there take?

9. A jet made a trip to the maintenance facility and back. The trip there took eight hours, and the trip back took 11 hours. It averaged 160 km/h on the return trip. Find the average speed of the trip there.

10. A passenger plane flew to the maintenance facility and back. It took 4.4 hours less time to get there than it did to get back. The average speed on the trip there was 310.5 mph. The average speed on the way back was 158.7 mph. How many hours did the trip there take?

11. An aircraft carrier traveled to Tahiti and back. It took 1.1 hours less time to get there than it did to get back. The average speed on the trip there was 26.5 mph. The average speed on the way back was 21.2 mph. How many hours did the trip there take?

12. Jessica made a trip to her friend's house and back. The trip there took 3.2 hours, and the trip back took two hours. She averaged 14.4 mph faster on the return trip than on the outbound trip. Find Jessica's average speed on the outbound trip.

13. A passenger train left Bengaluru and traveled toward the outer-most station at an average speed of 24 km/h. A cattle train left sometime later traveling in the same direction at an average speed of 36 km/h. After traveling for ten hours the cattle train caught up with the passenger train. How long did the passenger train travel before the cattle train caught up?

14. Erika left the hardware store and traveled east at an average speed of 45 km/h. Heather left two hours later and traveled in the same direction but with an average speed of 75 km/h. How long did Erika travel before Heather caught up?

15. A jet left London and flew toward Jakarta. Two hours later a passenger plane left flying 40 km/h faster in an effort to catch up to it. After eight hours the passenger plane finally caught up. Find the jet's average speed.

16. Eugene left the hardware store and drove toward the dump at an average speed of 32.4 mph. Sometime later Shawna left driving in the same direction but at an average speed of 59.4 mph. After driving for three hours Shawna caught up with Eugene. How long did Eugene drive before Shawna caught up with Eugene?

17. Michelle left home and traveled toward the dump at an average speed of 45 mph. Amanda left sometime later traveling in the same direction at an average speed of 50.4 mph. After traveling for five hours Amanda caught up with Michelle. How long did Michelle travel before Amanda caught up?

18. Castel left Cody's house and drove toward the town hall. Jose left 0.4 hours later driving 16 km/h faster in an effort to catch up to him. After 1.1 hours Jose finally caught up. Find Castel's average speed.