

Word Problem Project

Date _____

- 1) James left the movie theater and drove toward the ferry office. One hour later Kayla left driving at 40 mph in an effort to catch up to James. After driving for three hours Kayla finally caught up. What was James' average speed?
- 2) A cargo plane left Nairobi and flew toward Las Vegas at an average speed of 384 mph. An Air Force plane left two hours later and flew in the same direction but with an average speed of 480 mph. Find the number of hours the cargo plane flew before the Air Force plane caught up.
- 3) A cruise ship traveled to Madagascar and back. It took three hours longer to go there than it did to come back. The average speed on the trip there was 7 mph. The average speed on the way back was 10 mph. How many hours did the trip there take?
- 4) Paul left Jill's house and drove toward the recycling plant at an average speed of 55 km/h. Jenny left three hours later and drove in the opposite direction with an average speed of 30 km/h. Find the number of hours Jenny needs to drive before they are 335 km apart.
- 5) A saline solution was made by mixing 3 qt. of a 76% saline solution and 12 qt. of a 6% saline solution. What is the concentration of the mixture?
- 6) What is the price per kg of Indonesian cinnamon if 2 kg were mixed with 4 kg of Thai cinnamon which costs \$13/kg to make 6 kg of Brand M Cinnamon which costs \$14/kg?
- 7) How much of Brand A fruit punch (35% fruit juice) must be mixed with 9 L of grape juice to create a mixture containing 74% fruit juice?
- 8) How many qt. of a 60% acid solution must be mixed with 8 qt. of a 90% acid solution to make a 80% solution?
- 9) A plane traveled 672 miles to Lisbon and back. The trip there was with the wind. It took 7 hours. The trip back was into the wind. The trip back took 14 hours. Find the speed of the plane in still air and the speed of the wind.
- 10) When you reverse the digits in a certain two-digit number you decrease its value by 18. What is the number if the sum of its digits is 14?
- 11) John and Kim each improved their yards by planting grass sod and ornamental grass. They bought their supplies from the same store. John spent \$48 on 2 ft² of grass sod and 8 bunches of ornamental grass. Kim spent \$135 on 8 ft² of grass sod and 13 bunches of ornamental grass. Find the cost of one ft² of grass sod and the cost of one bunch of ornamental grass.
- 12) The school that Jill goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 12 adult tickets and 12 child tickets for a total of \$84. The school took in \$36 on the second day by selling 4 adult tickets and 6 child tickets. What is the price each of one adult ticket and one child ticket?
- 13) Carlos can pick forty bushels of apples in 9 hours. Adam can pick the same amount in 15 hours. Find how long it would take them if they worked together.
- 14) Working together, Kayla and Joe can paint a fence in 4.44 hours. Had he done it alone it would have taken Joe eight hours. How long would it take Kayla to do it alone?