

Section 3.6 – Mixture Problems

Problem Set 3

Find the following information.

1. Tickets to a high school musical cost \$2.5 for children and \$4.50 for adults. If the school sells 30 more adult tickets than children's tickets and makes a total of \$429, how much of each kind of ticket did they sell?
2. A mixture of quarters and nickels is worth \$14.00. If the number of nickels is twice the number of quarters, how many of each coin is there in the mix?
3. A company produces a fertilizer from two compounds. One is 82% nitrogen and the other is 34% nitrogen. The company needs 3000 pounds of a mixture that's 50% nitrogen. How much of each kind of fertilizer should be mixed to make that final product?
4. Say you a survey site has two different kinds of rock. One is 10% silver, the other is 35% silver. A mining company excavates 200 tons from the site and the total composition is 28% silver. How much of each type of rock was in the 200 excavated tons?
5. Suppose you have \$580 in your wallet made up of 5 and 20 dollar bills. If the number of 20 dollar bills is one less than half the number of 5 dollar bills, how many of each bill do you have?
6. The US Postal Service charges \$.78 to ship a 3 ounce package and \$.61 to ship a 2 ounce package. If Steven needs to ship five more 3 ounce packages than 2 ounce packages and the total cost is \$12.24, how many of each kind of package does he ship?
7. John has a bucket where he keeps his spare change. If he has twice as many quarters as dimes and six times as many pennies as quarters and the total amount in the bucket is \$36, how many of each coin does he have?
8. How many pounds of Darjeeling tea worth \$2.50 per pound must be added to 12 pounds of Indian Ceylon tea worth \$2.00 a pound to make a mixture worth \$2.30 per pound?