

Section 3.6 – Mixture Problems

Problem Set 2

Find the following information.

1. If you have \$2.36 in your pocket made up of pennies and dimes and you have 5 more pennies than dimes then how many of each coin do you have?
2. A piggy bank has quarters, dimes and nickels in it. The number of nickels is twelve more than the number of pennies and the number of dimes is three less than the number of pennies. If the bank has a total of \$2.86 then how many of each coin does it have?
3. A new animal feed is a mixture of two different kinds of grain. The first kind costs \$1.25 a pound and the second costs \$1.45 a pound. If the company needs 200 pounds of the grain for a test sample and wants to spend \$274, how much of each kind of grain can they buy?
4. If you have \$60 in your wallet made up of 5 and 10 dollar bills and the number of 10 dollar bills is one less than three times the number of 5 dollar bills, how many of each bill do you have?
5. A chef needs to purchase lemons and limes for a new dessert. Lemons cost 25¢ and limes cost 20¢. If the recipe calls for twice as many lemons as limes and the chef has \$4.20 to spend, how many of each fruit can he get? (Remember that you have to convert the dollar amount to cents.)
6. Bronze is an alloy of copper and, usually, tin. Assume that copper costs \$2.75 per kilogram and tin costs \$3.50 per kilogram. If you need 125 kilograms of a bronze alloy at a cost of \$347.50, how much of each metal do you need?
7. Solder is a mixture of tin and lead. If you need 10 pounds of solder, tin costs \$4.00 per pound, lead costs \$1.10 per pound and you only have \$13.90 to spend, how much of each metal should you buy?
8. Tickets to a school concert cost \$2 for children and \$3.50 for adults. If the school sells 130 tickets and makes a total of \$338, how much of each kind of ticket did they sell?