

Chapter 7.7

Mixture Problems Homework, Part 1

For each problem, make a chart like the one shown below. Solve for the two unknown values using substitution or elimination. Show the work.

	Number	Value	Total
1 st thing	x		
2 nd thing	y		
Total			

1. Matthew has been saving five and ten dollar bills. He has 20 bills, and the total amount of money he has is \$160. How many five-dollar and ten-dollar bills does he have?
2. Taylor has 50 coins, all dimes and quarters. The total value of the coins is \$7.25. How many of each kind of coin does she have? (Dime value = 0.10, Quarter value = 0.25)
3. Jessi invested \$6000, part at Bank A that pays 7% interest and the rest at Bank B that pays 9% interest. Her accounts earned a total of \$504 interest. How much money does she have saved at each bank?
4. An auditorium seats 2800 people. Some of the seats are balcony seats and some are floor seats. The balcony seat tickets cost \$48 and the floor seat tickets cost \$65. For a sold-out performance, the box office took in \$170,100. How many of each type of seat does the auditorium have?
5. Best Buy had earbuds for \$29.50 and wireless chargers for \$14.95. On Tuesday, they sold 32 items total and the sales had a value of \$740.30. How many chargers and earbuds did they sell?
6. A restaurant bought 36 new tables, some large and some small. The large tables cost \$145 each and the small tables cost \$120 each. The total cost of the tables was \$4870. How many tables of each size did they buy?
7. Marco borrowed \$12,000, part at 10% interest and the rest at 8% interest. He paid \$1050 in interest for a year. Find the amount of each loan.
8. Tracy is selling cupcakes and cookies. A cupcake cost \$2.50 and a cookie cost \$1.30. She sold 107 items and collect \$185.90. How many cupcakes and cookies did she sell?