Name _____ Class _____ Date _____

Practice 2-6

Mixture Problems

Write and solve an equation for each situation.

1. A store sells mixtures of almonds and cashews for $6.50 per pound. Peanuts sell for $2.95 per pound and cashews sell for $7.95 per pound. How many pounds of each should be used to make 80 pounds of this mixture?

2. A solution is 30% chlorine and another solution is 60% chlorine. How many liters of each solution should you use to make 120 liters of a solution that is 40% chlorine?

3. A 30-lb mixture of dried cranberries and blueberries costs $8.98 per pound. The mixture contains 12 pounds of dried cranberries that cost $4.99 per pound. What is the cost per pound of the dried blueberries?

4. The manager of a tea shop mixes two types of teas to make a specialty blend. Alone, the teas sell for $3.99 and $8.99 per ounce. How many ounces of each type of tea should be used to make 32 ounces of a mixture that sells for $5.99 per ounce?

5. A chemist needs a saline solution that is 20% sodium chloride but only has solutions that are 15% and 40% sodium chloride. If the chemist measures 150 mL of the 15% solution, how many milliliters of the 40% solution should she add to make a 20% solution?

6. A beverage company plans to make a fruit juice blend using grape juice and cranberry juice that sells for $3.80 per gallon. If grape juice costs $2.99 per gallon and cranberry juice costs $4.99 per gallon, how much grape juice will be needed to make 50 gallons of the fruit juice blend?

7. A chemistry student mixes together 12 mL of a 10% chlorine solution, 5 mL of a 80% chlorine solution and 20 mL of a 45% solution. About what percent chlorine is the final solution?

8. A boat owner mixes together oil and gasoline to make 40 gallons of fuel for his boat. The mixture must be 2% oil and 98% gasoline. Oil costs $64 per gallon and gasoline costs $2.50 per gallon. If the total cost for the fuel was $149.20, how much oil did he buy?

9. Mr. Hackney wants to winterize his motor home and needs a 40% antifreeze solution. How much pure antifreeze must he add to 10 liters of 20% antifreeze to make a 40% antifreeze solution?