Mixture Problem Worksheet

1) Five hundred tickets were sold for a fundraising dinner. The receipts totaled $3312.50. Adult tickets were $7.50 each and children's tickets were $4.00 each. How many tickets of each type were sold?

2) Twelve gallons of regular unleaded gasoline plus 8 gallons of premium unleaded gasoline cost $50.86. Premium unleaded gasoline costs $0.11 more per gallon than regular unleaded. Find the price per gallon for each grade of gasoline.

3) How many liters of a 20% acid solution must be mixed with a 60% solution to obtain 40 liters of a 35% solution?

4) Ten pounds of mixed nuts sells for $6.87 per pound. The mixture is obtained from two kinds of nuts, peanuts priced at $5.70 per pound and cashews at $8.70 per pound. How many pounds of each variety of nut are used in the mixture?

5) A truck travels for 4 hours at an average speed of 42 miles per hour. How much longer must the truck travel at an average speed of 55 miles per hours so that the average speed for the total trip will be 50 miles per hour?

6) A mixture of nickels and quarters totals $9.90. There is a total of 50 coins. How many are quarters and how many are nickels?

7) The total score in a basketball game was 92 points. This was a combination of 2 point shots and 3 point shots. There were a total of 43 scoring events. How many were 2 point shots and how many were 3 point shots?

8) In a pen at Old MacDonald's farm there are some sheep and some geese. There is a total of 115 animals, and there are 424 legs. How many sheep and how many geese are there?

10) A materials scientist has 6 lbs of a 40% silver alloy. How many pounds of pure silver must he mix with the entire 6 pounds of 40% alloy to obtain as much of a 62% alloy as he can? Round your answer to two decimal places.