Mixture Problems

1. How much pure disinfectant must be added to 30 gallons of an 8% solution to increase its strength of 25%?

2. The radiator of an automobile already contains 12 quarts of a 10% solution of alcohol. How much alcohol must be added to make a mixture of 20% alcohol?

3. A pharmacist has 4 quarts of a 15% solution of iodine. How much alcohol must he add to reduce it to a 10% solution?

4. How much water must be added to 30 quarts of a 75% solution of acid to reduce it to a 15% solution?

5. A pocketbook contained 12 coins, all nickels and dimes. Their value was \$1.05. How many nickels were there?

6. Eleven coins consisting of quarters and nickels are worth \$1.95. How many quarters are there?

7. A grocer wishes to mix \$120 tea with \$1.50 tea to make a mixture of 60 pounds worth \$1.30 a pound. How many pounds of each kind must he mix?