Some coin problems:

1. You have dimes, nickels and quarters totalling $6.00. You have the same number of each type of coin. How many of each do you have?

   ans: 15

2. You have 10 coins: pennies, nickels and dimes, with three times as many nickels as pennies, and twice as many dimes as nickels. How many of each coin do you have?

   ans: 1 p, 3 n, 6 d

3. A cash bank deposit of $1000 is made up of five, ten and twenty dollar bills. The number of ten and twenty dollar bills is the same, while the five and ten dollar bills number 100 in total. What is the total value of the twenty dollar bills?

   ans: $400

Some mixing problems:

1. A 30% sugar solution is to be mixed with a 90% sugar solution to produce 800 mL of 60% sugar solution. What volume of each of the first two solutions are required?

   ans: 400 mL of each

2. 55 mL of 15% acid solution is mixed with 75 mL of 35% acid solution. What is the concentration of the resulting acid solution?

   ans: $\doteq 26.5\%$

3. Into a bowl containing 1 litre of 2% milk (that is, 2% of the volume of milk consists of milk fat) you are adding 1% milk in order to end up with 1.75% milk. How much 1% milk must you add?

   ans: 1/3 L