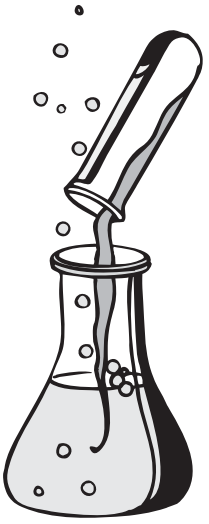
STIXTURE PROBLEMS

A lab technician has a solution that is 60% acid, and another that is 40% acid. How much of each solution should be mixed to produce 100L of 50% acid solution?

Representation with multi-link cubes: 1 cube equals 1 liter of solution or 1 liter of acid (depending on color).

1. Start with 2L of 50% solution and 5L of 20% solution. What percent of the 7L mixture will be acid?

   a) Use multi-link cubes to demonstrate the 2L of 50%.
   b) Use multi-link cubes to demonstrate the 5L of 20%.
   c) Combined the two to show the percentage of 7L solution.



2. Try again with 10L of 60% solution and 4L of 25% solution. What percent of the 14L mixture will be acid?

3. Now, some quantity of 50% acid solution and another quantity of 25% acid solution must be mixed to form 10L of solution that is 40% acid. How much of each must be mixed?

   a) Use multi-link cubes to represent the 10L of 40%.
   b) Split the 10L into two portions, one that is 50% and another that is 25% solution.

4. Finally, some quantity of 40% acid solution and another quantity of 10% acid solution must be mixed to form 15L of solution that 20% acid. How much of each must be mixed?