Here's an Example of a GMAT Problem Solving Question:

Liquid X is composed of 30% alcohol and 70% water, while Liquid Y is composed of 18% alcohol and 82% water. The two liquids are combined to form Mixture Z, which is composed of 21% alcohol and 79% water. What is the ratio in Mixture Z of Liquid X to Liquid Y?

   (A)   1:3
   (B)   2:5
   (C)   1:2
   (D)   2:1
   (E)   3:1

And Here's How a Kaplan-Trained GMAT Test Taker Would Answer This Question:

For this question and those on the following pages, we will approach using the steps of the Kaplan Method. Each question type has its own Method—a proven, repeatable system for structuring your work and ensuring that you are thinking critically.

Step 1—Analyze the Question: Here we are creating a new mixture from two others. Some amount of a 30% alcohol mixture plus some amount of an 18% alcohol mixture will balance each other out to form a 21% alcohol mixture.

Step 2—State the Task: We want to find the ratio of the two mixtures needed to obtain a 21% alcohol mixture. The typical mathematical approach would be to set up algebraic equations using multiple variables (one for the 18% solution and one for the 30% solution), but you can avoid these complicated calculations by using the "balanced average approach" to calculate the ratio of Liquid X to Liquid Y in the final mixture.

Step 3—Approach Strategically: Compare each of the original percentages (30% and 18%) to the "average," or final, mixture (21%). For example, if we were looking for a 24% alcohol mixture, we would notice that since 24 is exactly halfway between 18 and 30, we'd need equal parts of the 18% and the 30% liquids in order to achieve a "balance" of 24%. This question is a little more difficult, but we can take a similar approach. First, look at the two liquids we have (18% and 30% alcohol) and compare them to the final percentage we're trying to find (21%):

30% alcohol in Liquid X	18% alcohol in Liquid Y
30% − 21% = 9%	18% − 21% = —3%
(9 above 21)	(3 below 21)

In order to find the correct "balance" to obtain a 21% mixture, we need to have three times as much of Liquid Y as we do of Liquid X. This means that for every 1 part of Liquid X, we need 3 parts of Liquid Y. The ratio of X to Y is 1:3, and **choice (A) is correct.**

Step 4—Confirm Your Answer: Review your calculations for this question. Also, confirm that your answer choice makes sense in the context of the question. Since 21% is closer to 18% than it is to 30%, this means Mixture Z is much more similar to Liquid Y than it is to Liquid X, so it makes sense that there is a lot more of Liquid Y in it than Liquid X. Our answer corresponds with this insight. You could have set up and solved an algebraic equation, but in this case, critical thinking gets you to the answer faster.

Key Takeaway:

Mastering a range of content areas, such as ratios and averages, is necessary but not sufficient for GMAT success. Kaplan will teach you how to handle the various ways the GMAT tests these mathematical topics.