

QUESTION OF THE WEEK
SEPTEMBER 11, 2007

One of the reasons that problem solving is often difficult is that we don't know where to begin. Once we have some sort of course charted out in front of us, we can follow that path and hopefully arrive at a solution. But conjuring up that course to follow is a significant challenge. Often this is the most challenging part of problem solving because it is entirely creative: you have to literally *create* the plan for generating a solution. Without the plan, you're sunk. This is the time where you should revel in the opportunity to display your brilliance! One thing that may help in forging a path from the problem to the solution is to always consider all of the available data. This is good advice in any regard, but it's especially important when first considering how to find a solution. Failing to consider everything right at the start means that you might miss the one opportunity to begin the solution. Review all of the information that's provided, determine the implications of these data or facts, and then see if you can make a connection between the goal and what you are given.

Give it a try with the following problem. Two men meet on the street. They haven't seen each other for many years. They talk about various things, and then after some time one of them says: "Since you're a professor in mathematics, I'd like to give you a problem to solve. You know, today's a very special day for me: All three of my sons celebrate their birthday this very day! So, can you tell me how old each of them is?"

"Sure," answers the mathematician, "but you'll have to tell me something about them."

"OK, I'll give you some hints," replies the father of the three sons, "The product of the ages of my sons is 36."

"That's fine," says the mathematician, "but I'll need more than just this."

"The sum of their ages is equal to the number of windows in that building," says the father pointing at a structure next to them.

The mathematician thinks for some time and replies, "Still, I need an additional hint to solve your puzzle."

"My oldest son has blue eyes," says the other man.

"Oh, this is sufficient!" exclaims the mathematician, and he gives the father the correct answer: the ages of his three sons.

Your challenge now is to do the same: to follow the reasoning of the mathematician and solve the puzzle that is, find the ages of all three sons. Good luck, and have fun. Remember, the first person who gets me the correct response gets the points.