

MITOCW | 4. Tell us about your pedagogical methods: How do you go about teaching the course?

PROFESSOR: I guess, my goal in every lecture is to get some light bulbs to go on, and that can be a challenging thing for-- I think it's a challenging thing for a teacher, but it's a wonderful thing when it happens. And so, I mean, to do that, I think the first step is you've got to get the kids engaged in the problem, and whether that involves sometimes humorous demonstration of the problem, or you drawing on anecdotes, or examples-- getting them thinking about the problem and ideally a little puzzled, I think, is the first step.

And then hopefully taking them through some examples or related problems can get them to that point aha point where I don't actually have to tell them the solution. They see it for themselves. Combinatorics is very well suited to that, because there are so many patterns that come up over and over again, whether it's the Fibonacci sequence, or Pascal's Triangle, or the Catalan numbers, or any other phenomenon that appears in many different guises throughout combinatorics. So it's natural for achieving them.