Danny Dyer

I am a professor in the Department of Mathematics and Statistics at Memorial University of Newfoundland

I help create and run math competitions for Junior High students. Our competitions are run in groups, and live, so that students can put their heads together and solve a problem. It's the aspect of mathematics that I love best myself – getting together with collaborators and kicking around ideas about how to solve a problem.

I like teaching, because I love the "lightbulb" moments, when you're talking to students and you can suddenly see that they get it. Something has finally clicked, and what was impossible becomes transparent.

My own research, in graph theory, lets me chase my own lightbulb moments. Graph theory is the study of graph, which are a way to model the connections between things. A famous graph is the Bacon graph: imagine a collection of actors as dots, and there is a line between two dots if both actors have been in movie together. It's widely believed that the actor Kevin Bacon is at most 6 movies away from any other actor. In graph theoretical terms, this would mean that the Bacon graph has diameter at most 6!

In my own research, I am interested in cops chasing robbers in graphs, as well as graphs that come from board games. The board game "Scotland Yard" is an excellent combination of both.

I read a lot. Mostly fiction – sci fi, fantasy, mystery are all favourites. I love role-playing games and board games. I've been playing Dungeons and Dragons and similar games for 30 years, and I still try to get in some role-playing every week. Lots of television: my favourite shows right now are Star Trek: Discovery, Line of Duty, and the panel show, Taskmaster, which is the funniest thing I've ever seen.

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