



## The Crazy Conditioning

Like all sports, soccer requires its players to be well trained. That is why players often have to run sprints in practice.

To make sprint drills more interesting, many coaches set up competitions. Coaches might split the players into teams and have them run relay races against each other. Or they might have the players sprint around cones and over barriers. What other ways would make doing sprints more fun? Think about this during this Mathematical Modeling in 3 Acts lesson.

### ACT 1 Identify the Problem

1. What is the first question that comes to mind after watching the video?
2. Write down the main question you will answer about the video.
3. Make an initial conjecture that answers this main question.
4. Explain how you arrived at your conjecture.
5. Write a number that you know is too small.

6. What information will be useful to know to answer the main question? How can you get it? How will you use that information?

## **ACT 2** Develop a Model

7. Use the math that you have learned in the topic to refine your conjecture.

8. Is your refined conjecture between the high and low estimates you came up with earlier?

## **ACT 3** Interpret the Results

9. Did your refined conjecture match the actual answer exactly? If not, what might explain the difference?