

Problem Solving Strategies

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1 Goals

The goals of this activity are:

1. To talk about how students can read and solve problems.

2 Materials

For this activity you will not need any materials.

3 Instructions

This activity will take approximately 20 minutes.

1. Start a discussion with students about what problem solving strategies they have used in the problems they've worked on in class thus far.
2. Ask students to shout out various ways they might solve problems, and write them on the white board. Some potential answers that may come up from students: experimenting, guessing and making conjectures, modifying the problem and trying simpler examples, using good notation, drawing pictures, reading carefully to understand the information you have, working together and sharing solutions, convincing a skeptic, seeing what concepts in the book the question is trying to test, thinking about whether there are any tools or theorems that might apply to the problem, and asking for help.
3. Ask students to take a picture of the white board, so they can remember some of these skills and return to them if they feel like they're struggling with a problem later in the class.

4 Tips

1. Emphasize that problem solving is hard.
2. Draw on your observations of students to provide examples of problem solving strategies.