Growth Mindset Thinkers
Video: Being a Powerful Mathematical Thinker

(ALAN SCHOENFELD:) For me, being mathematically powerful means being able to use the ideas you have in the service of solving challenging problems, some of which you encounter in real-world contexts.
Mathematics is more than, quote, "Mastering content." It's about learning content, but also developing the habits of mind that enable you to be a productive thinker and problem-solver. And those habits of mind include having a mathematical disposition so that when you look at a complex situation you say, "How can I take this apart mathematically? How can I analyze it? How can I make progress on it?" It means persevering in problem-solving. It means being able to communicate your ideas orally and in writing. All of those things are part and parcel of learning to be mathematically powerful.
And what we've learned over the past couple of decades is that if you compare instruction -- say you have one kind of instruction in which kids are basically drilled on mathematical skills, procedures, the kinds of stuff that's in standardized tests. And they get that all the time. And other instruction in which there's a balanced diet of skills, concepts, and problem-solving. There is now clear evidence that says that if you give a standardized test of skills, kids who got the balanced diet of skills, concepts, and problem-solving do as well on skills as the kids who got nothing but a test of skills. So you haven't lost anything. And then if you give a test of concepts and problem-solving, the kids who got the balanced diets beat the pants off the other kids, who can only do the skills. Can't do the problem-solving and can't transfer to other things.