# Mathematical Dispositions

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Dispositions have long been an important consideration in the study of teaching and learning processes. They may be considered the values, commitments, and professional ethics that influence behaviors. Productive dispositions pertain to the ways in which students and teachers consciously and deliberately think of, experience and respond to such mathematics. How dispositions inform mathematical goals, directly shapes not only one's understanding of content, but what one thinks and believes, as well as how they intentionally act in mathematical spaces. Ultimately, these mathematical experiences form one's identity and how we see ourselves in relation to mathematics. Attending purposefully to dispositions allows us to think of ourselves as engaged, confident, joyful creative, mathematical thinkers oriented toward relevant ideas in a supportive community.

Productive mathematical dispositions help students see mathematics as sensible, useful, and worthwhile while fostering confidence in their ability to engage with mathematical ideas. These dispositions not only influence how students approach problem-solving but also shape their willingness to take risks, persist through challenges, and recognize their own mathematical strengths.

To support the development of productive dispositions, we focus on six key areas: relevance, community, curiosity, enjoyment, confidence, and creativity. Each of these plays a role in shaping how students see and experience mathematics. By attending purposefully to dispositions, teachers create classrooms where students feel empowered to explore, reason, and engage deeply with mathematical ideas.