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# **Standards for Mathematical Practice**

## MP1 Toughen up!

Students develop grit and resiliency in the face of nasty, thorny problems. It is the most sought after skill for our students.

#### MP2 Think abstractly!

Students take problems and reformat them mathematically. This is helpful because mathematics lets them use powerful operations like addition.

#### MP3 Work together!

Students discuss their strategies to collaboratively solve a problem and identify missteps in a failed solution. Try pairing up elementary students and getting older students to work in threes.

## **MP4 Model reality!**

Students create a model that mimics the real world. Discoveries made by manipulating the model often hint at something in the real world.

# MP5 Use the right tools!

Students should use the right tools: 0-99 wall charts, graph paper, **rulers**, polypad etc.

## **MP6 Be precise!**

Students learn to communicate using precise terminology. Students should not only use the precise terms of others but invent and rigorously define their own terms.

#### **MP7 Be observant!**

Students learn to identify patterns. This is one of the things that the human brain does very well. We sometimes even identify patterns that don't really exist! ;-)

## MP8 Be lazy!?!

Students learn to seek for shortcuts. Why would you want to add the numbers one through a hundred if you can find an easier way to do it?

# **Solutions**







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