

Attend to precision.

Mathematical Practice 6



I can use precision when solving problems and communicating my ideas.

Mathematicians attend to precision by using...

How much chocolate will each person get if 3 people share $\frac{1}{2}$ lb. of chocolate equally?

$$\frac{1}{2} \text{ lb.} \div 3 \text{ people} = \frac{1}{6} \text{ lb. of chocolate each}$$

Diagram labels: "symbols" points to the fraction $\frac{1}{2}$; "units of measure" points to "lb."; "context" points to "of chocolate each".

- math vocabulary with clear definitions
- symbols that have meaning
- context labels
- units of measure
- calculations that are accurate and efficient

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Jordan School District 2012, Grade 6

WHAT ARE STUDENTS DOING?

- Use and clarify mathematical definitions in discussions and in their own reasoning (orally and in writing).
- Use, understand and state the meanings of symbols.
- Express numerical answers with a degree of precision.

-Tompkins Seneca Tioga BOCES (2012)

What it means: Students speak and solve mathematics with exactness and meticulousness.

Own it: Push students to use precise and exact language in math. Measurements should be exact, numbers should be precise, and explanations must be detailed. Students should try to explain exactly what they do and do not understand and where their understanding falls apart.

Reference taken from: Scholastic (<http://goo.gl/mv6nFi>)

MP6 Attend to Precision

- Communicate precisely to others
- Use clear definitions in discussion with others and in reasoning
- State the meaning of the symbols chosen
- Specify units of measure and label axes
- Calculate accurately and efficiently



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Common Core Standards for Mathematical Practice



WHAT DOES IT LOOK LIKE AT EACH LEVEL?

Elementary: As children begin to develop their mathematical communication skills, they try to use clear and precise language in their discussions with others and when they explain their own reasoning.

Middle School: Students continue to refine their communication skills with others and with their own reasoning. They use appropriate terminology, define variables, specify units of measure, and label axes accurately.

High School: Students communicate precisely to others by using clear definitions in discussions and examine claims. They state the meaning of the symbols they choose, specifying units of measure, and labeling axes to clarify the quantities. They calculate accurately and efficiently.

-adapted from Arizona Dept. of Ed. Mathematics Standards 2010

QUESTIONS TO ASK STUDENTS: ---How can you use math vocabulary in your explanation?

---How do you know those answers are equivalent? ---What does that mean?

-GO Math! Houghton Mifflin Harcourt (2012)

"Somewhere, something incredible is waiting to be known."

-Carl Sagan