

The Standards for Mathematical Practice

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I'm not sure how many
problems I have because
math is one of them.



somee cards
user card

What are the SMP?

It's a list of what mathematically proficient students should be able to do given any problem.

It's what college and career ready students should be able to do.

It helps students to become better problem solvers and see math in the world around them.

The Eight Standards for Mathematical Practice

Standard 1: Make sense of problems and persevere in solving them.

Standard 2: Reason abstractly and quantitatively.

Standard 3: Construct viable arguments and critique the reasoning of others.

Standard 4: Model with mathematics.

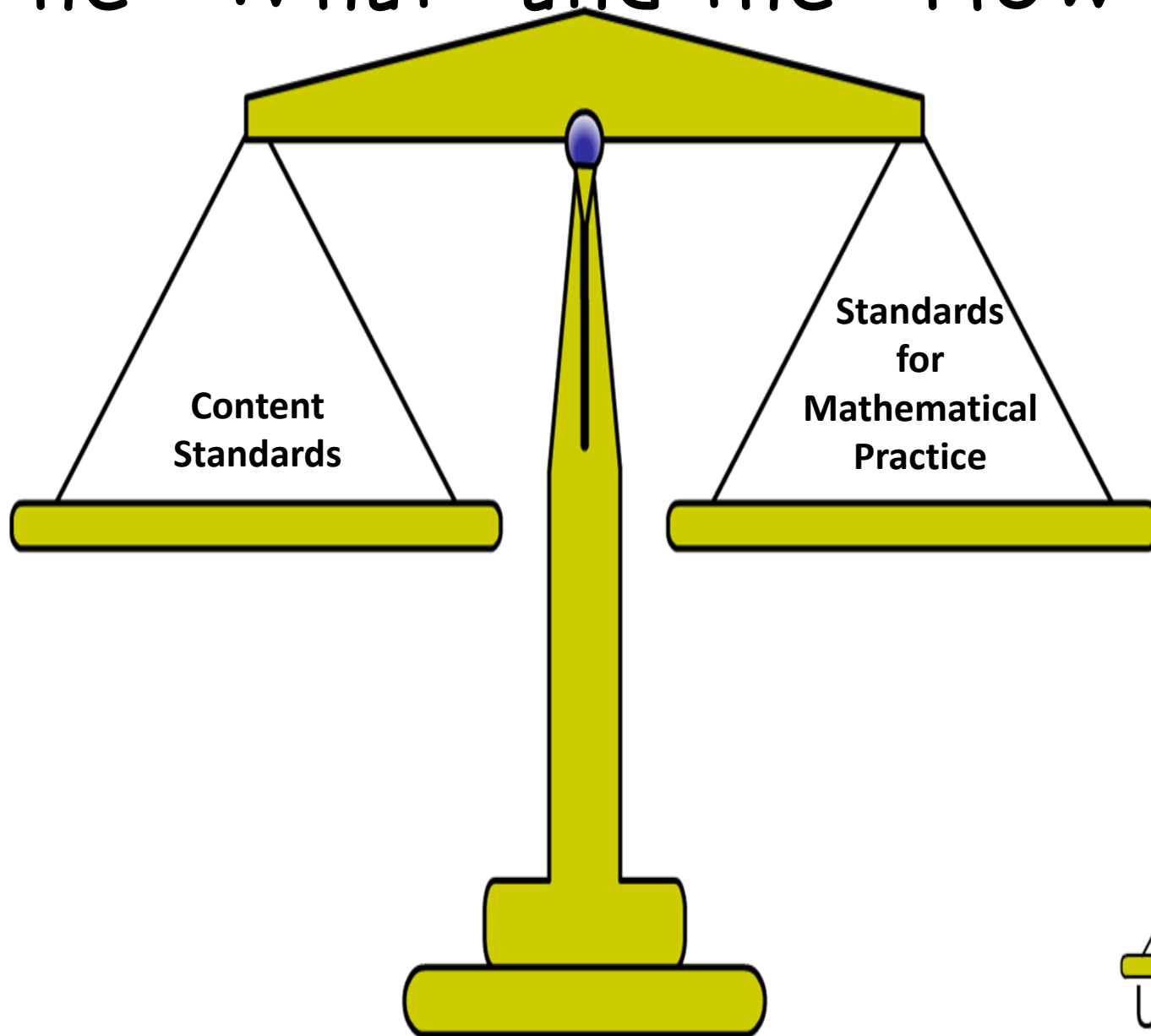
Standard 5: Use appropriate tools strategically.

Standard 6: Attend to precision.

Standard 7: Look for and make use of structure.

Standard 8: Look for and express regularity in repeated reasoning.

The “What” and the “How”



Digging Deeper

Chunking the Text
and Graphic Organizer

SMP Sort

Partner up and sort the cards
onto the placemat.



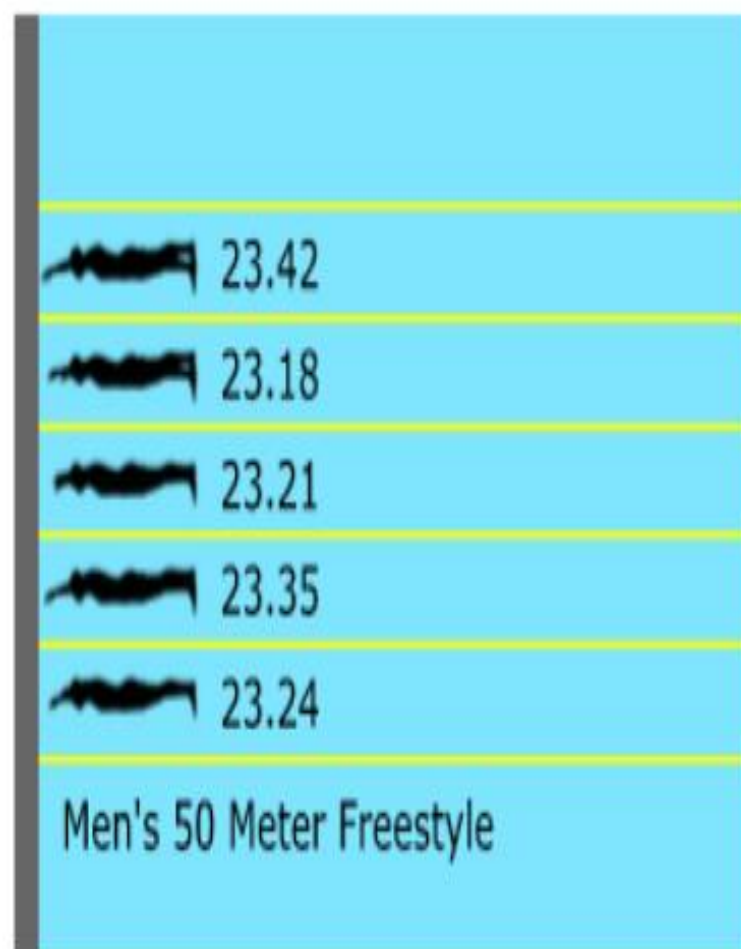
KID SNIPPETS:
MATH CLASS

What is Rigor?

“Students should have frequent opportunities to formulate, grapple with, talk about and solve complex problems that require a significant amount of effort and should then be encouraged to reflect on their thinking.”

NCTM (2000) Principles and Standards

Five swimmers compete in the 50-meter race. The finish time for each swimmer is shown in the video.



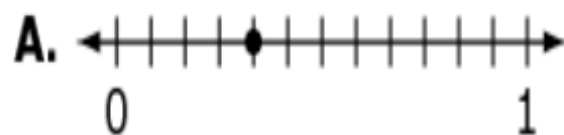
Explain how the results of the race would change if the race used a clock that rounded to the nearest tenth.



Look at point P on the number line.

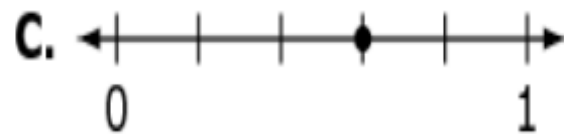


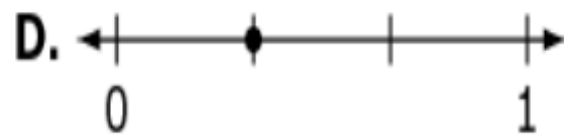
Look at number lines A – E. Is the point on each number line equal to the number shown by P ? Choose Yes or No.

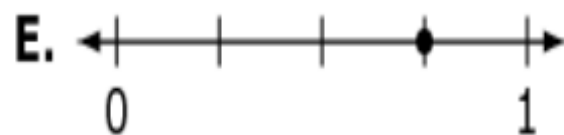

 Yes

 No

 Yes

 No

 Yes

 No

 Yes

 No

 Yes

 No



Exemplar Items



LUNCH

Increasing the Rigor



Rigorous Lessons

<http://schools.nyc.gov/Academics/CommonCoreLibrary/TasksUnitsStudentWork/default.htm>

www.threeracts.mrmeyer.com

<http://map.mathshell.org/materials/index.php>

www.illustrativemathematics.org

<http://alex.state.al.us/insight/madisonco>

<https://www.madison.k12.al.us/departments/instruction/studentassessment/Pages/CCSS.aspx>

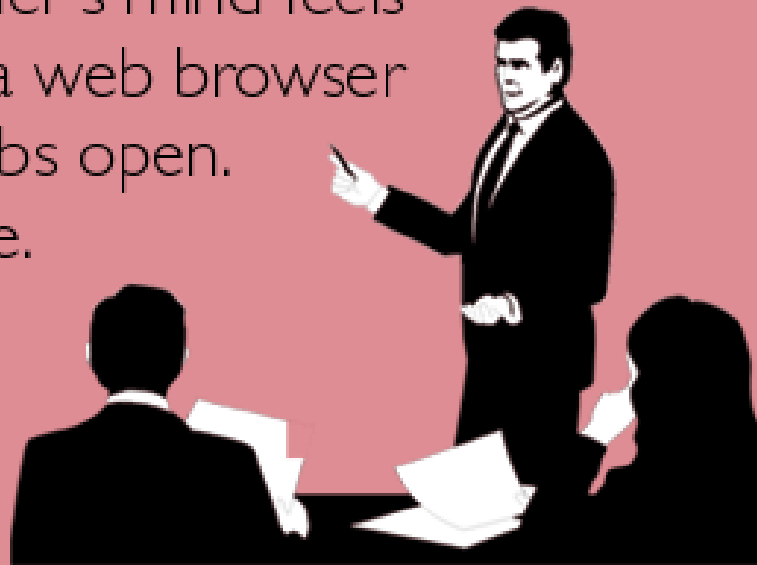
<http://www.virtualnerd.com/>

<http://mathsnacks.com/>

<https://www.teachingchannel.org/videos/sorting-classifying-equations-overview>

Planning

Students: if you ever want to know what a Teacher's mind feels like, imagine a web browser with 2,879 tabs open. All. The. Time.



someecards
user card

My Favorite No

Multiply and/or
Combine like terms

$$4x(2x-9) - 2(5x -$$