**Argumentation**

**Take-Aways**



Take-away 1! *What is an argument?*

*A sequence of statements and reasons given with the aim of demonstrating that a claim is true or false*

Take-away 2! *There’s a difference between an explanation of what you did and an argument.*

Take-away 3! *Argumentation involves claims, warrants and evidence.*

Take-Away 4! *Not all arguments are valid (viable).*

Take-away 5! *Community matters!*

*What “counts” as an acceptable (complete) argument varies by grade (age-appropriate) and by what is taken-as-shared in a class (established already as true). Regardless of this variation, it should be mathematically sound.*

Some Resources

Websites/Videos

NCTM – Digital Library of Practice Prototype – Ms Hauser & the Hexagon Task: Constructing, Critiquing & Revising Arguments: <http://www.nctm.org/profdev/library/default.aspx?id=34509>

Read Tennessee: “Tennessee Early Grades Math Toolkit.” Main link (for all MPs): <http://www.readtennessee.org/math/teachers/teachers_mathematics_toolkit/mathematical_practices.aspx>

Link for MP3

<http://www.readtennessee.org/math/teachers/teachers_mathematics_toolkit/mathematical_practices/construct_viable_arguments_and_critique_the_reasoning_of_others/cv_watch.aspx>

Think Math from EDC <http://thinkmath.edc.org/resource/mp3>

Solid overview of the practice – what it looks like in elementary grades

Additional Readings

* *Developing Essential Understanding of Proof and Proving: Grades 9 – 12,* NCTM.
* Reid, D. (2002). Describing reasoning in early elementary school mathematics.” *Teaching Children Mathematics, 9*(4), 234-237.

Reid describes several types of mathematical reasoning that elementary school students use and offers some pedagogical ideas. Article at: <http://karolyeatts.com/Math/Resources/describingreasoning.pdf>

* Barlow, A. T., and McCrory, M. R. (2011). 3 strategies for promoting math disagreements*. Teaching Children Mathematics, 17*(9), 530-539. Summary of article at:[*http://bestpracticesweekly.com/wp-content/uploads/2011/05/Math-Debate-Article.pdf*](http://bestpracticesweekly.com/wp-content/uploads/2011/05/Math-Debate-Article.pdf)