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[Name picker](#)

This presentation

bit.ly/NCTMwarmUp

GOALS of these warm ups

- Create a predictable learning environment
- Students begin each class employing math practice standards
- Build math skills in different areas
- Get students thinking about math differently
- Allowing teacher to walk around and make connections with students

Caution:

Careful and thoughtful selection and sequencing of the warm up tasks

Don't implement warm ups just for the sake of working bell to bell.

Warm Up



- 1** What is the value of $x^2 + 3yz$ if $x = 3$, $y = 6$, and $z = 4$?

Research

The National Institutes of Health (NIH) reports that one in four thirteen-eighteen year olds have anxiety.

Anxiety can be presented as: ADHD, disruptions, off task behavior, shutting down, shouting out, substance abuse, depression...

Understanding the role anxiety plays in behavior is crucial to creating a safe environment. Using preventive strategies are key to successful intervention.

Research

Unstructured time and transitions are two key triggers for students with anxiety.

With anxiety, working memory plummets, making it very difficult to recall or retain information.

Warm up routines can be a critical component in addressing student anxiety and creating a predictable and safe class environment.

Executive Functioning skill development

- Organization
- Time Management
- Task Initiation

Students often struggle in school, not due to specific academic weaknesses, but to issues of organization, time management, and a strategic approach to getting work done.

Monday: Which One Doesn't Belong
List all of the possible ways each one doesn't belong

II

I

III

IV

Tough Patterns Tuesdays

1. What comes next? <i>Draw a picture, or write an explanation</i>		2. How do you see this growing?	
3. What would the 10 th step look like?	4. Is this linear, quadratic, exponential, or none of these?	5. Try to develop an equation to represent the scenario.	

What do you think Wednesday

Description: _____

TOO HIGH

TOO LOW

My Estimate

Answer: _____

Error: + / - _____

Error as a %: _____

My Reasoning:

This Through This Thursday
Quiet, individual think time | Solve mentally (no writing yet) | Give signal when you have a strategy

Your thinking	_____ 's method	_____ 's method	_____ 's method
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Find the Flub Friday

Try the problem on your own:	What type of error was it? <input type="checkbox"/> CARELESS: Writing The Wrong Number Not Following Directions <input type="checkbox"/> COMPUTATION: Adding, Subtracting, Multiplying, or Dividing Incorrectly <input type="checkbox"/> PRECISION: Work Too Messy to Understand Dropping a Negative Sign Forgetting Parentheses Missing Units Lack of Labeling Incorrect Notation <input type="checkbox"/> PROBLEM SOLVING: Not Following Rules of Algebra Failure to Complete all of the Steps Not Showing Thinking for Each Step
	Explain why you think it was this type of error:

I used to think...	I wish Mrs. B knew...	One thing that surprised me this week was...
...but now I think...		

WHICH ONE DOESN'T BELONG?

9	16
25	43



<http://wodb.ca/>



Which One Doesn't Belong?

A Shapes Book and Teacher's Guide (Teacher's Bundle)

Christopher Danielson

☐ Teacher's Bundle: **\$25.00** List Price: ~~\$33.33~~

 **Add to Cart**

Qty.

1

 [Product Details](#)

Consider the 8 Math Practice standards:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

VISUAL PATTERNS

<http://www.visualpatterns.org/>



VISUAL PATTERNS

1. What comes next?
Draw a picture, or write an explanation

2. How do you see this growing?

3. What would the 10th step look like?

4. Is this linear,
quadratic,
exponential, or none
of these?

5. Try to develop an equation to represent the
scenario.

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ESTIMATION 180

<http://www.estimate180.com/>

Description: _____

Answer: _____

My Estimate

TOO HIGH

GUESS:

TOO LOW

Error: + / - _____

Error as a %: _____

My Reasoning:

How many scoops of candy corn will fill the jar?



How many scoops of candy corn will fill the jar?



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Quiet, individual think time

Solve mentally

Without using an algorithm

Thumbs up against chest when you have a strategy

$$18 \times 5$$

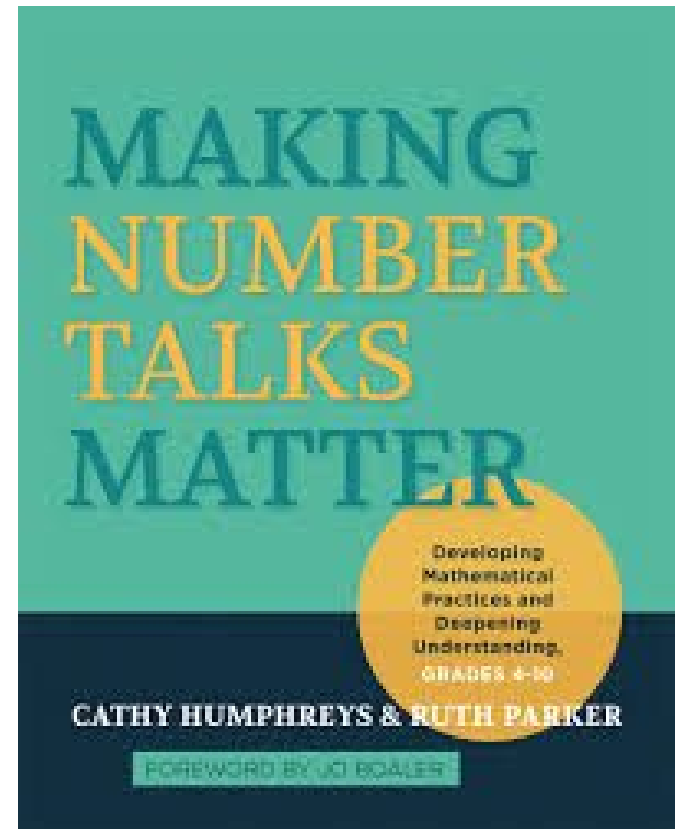
"The depressing thing about arithmetic badly taught is that it destroys a child's intellect, and to some extent, his integrity. Before they are taught arithmetic, children will not give their assent to utter nonsense; afterwards, they will."

-Walter W. Sawyer

Making Number Talks Matter

Developing Mathematical Practices and Deepening Understanding, Grades 4-10

Cathy Humphreys
and Ruth Parker



NUMBER TALKS

Your thinking

_____’s method

_____’s method

_____’s method

NUMBER TALKS

[Jo Boaler / Cathy Humphries Number talk video](#)

<http://www.mathtalks.net/teachers.html>

NUMBER TALK IMAGES

<http://ntimages.weebly.com/>

FRACTION TALKS

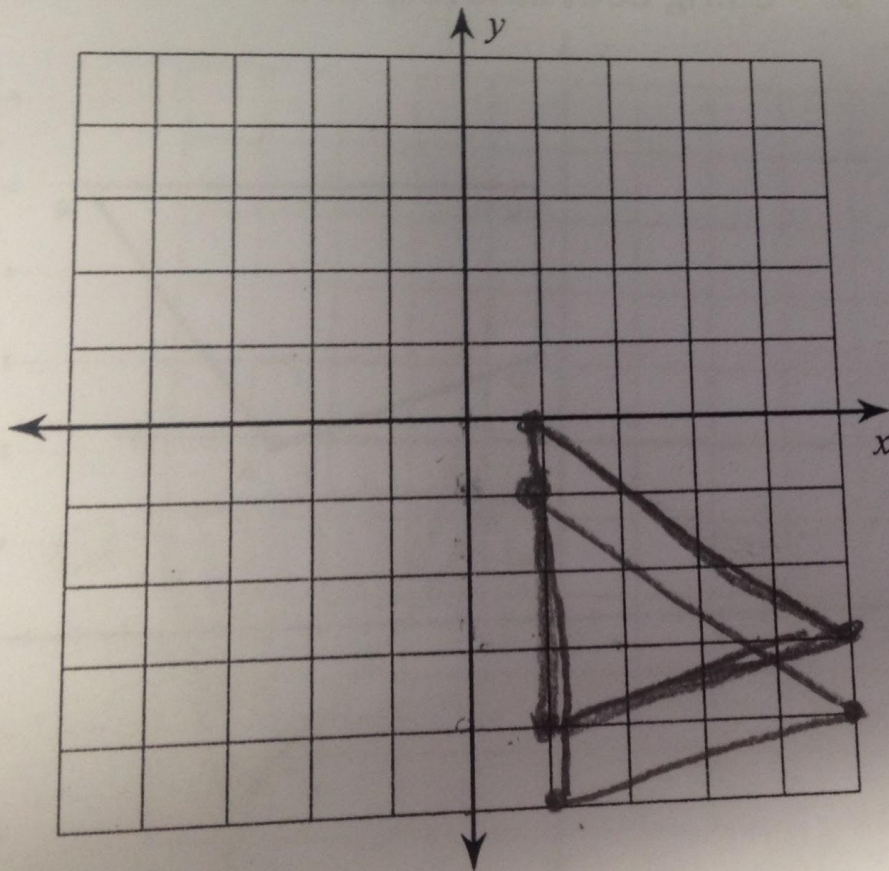
<http://www.fractiontalks.com/>

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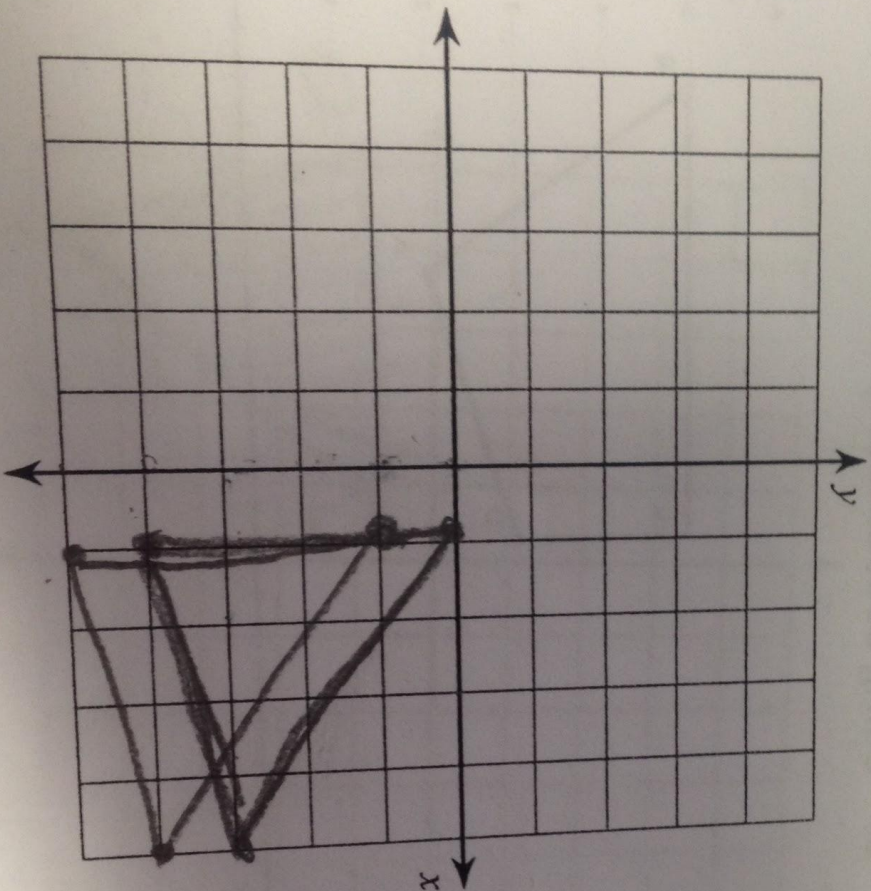
FIND THE FLUB

2) translation: $(x, y) \rightarrow (x - 1, y)$
 $D(-3, -5), Q(-4, -1), W(0, -1)$



$(-4, -5)$
 $(-5, -1)$
 $(-1, -1)$

2) translation: $(x, y) \rightarrow (x-1, y)$
 $D(-3, -5), Q(-4, -1), W(0, -1)$



$(-4, -5)$
 $(-5, -1)$
 $(-1, -1)$

FIND THE FLUB

Try the problem on your own:

What type of error was it?

- ☐ CARELESS: Writing The Wrong Number | Not Following Directions
- ☐ COMPUTATION: Adding, Subtracting, Multiplying, or Dividing Incorrectly
- ☐ PRECISION: Work Too Messy to Understand Dropping a Negative Sign | Forgetting Parentheses Missing Units | Lack of Labeling | Incorrect Notation
- ☐ PROBLEMSOLVING: Not Following Rules of Algebra | Failure to Complete all of the Steps | Not Showing Thinking for Each Step

Justify your classification with a complete sentence:

Consider the 8 Math Practice standards:

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An example...

Warm-ups Monday's date: _____ Name: _____ period: _____

Mental Math Monday

1.	2.	3.	4.
5.	6.	7.	score!
8.	9.	10.	Why did you miss some?

Tough Patterns Tuesday

1. What comes next? Draw a picture, or write an explanation	2. How do you see this growing?
3. What would the 10 th step look like?	4. Is this linear, quadratic, exponential, or none of these?
5. Try to develop an equation to represent the scenario.	

Ways to Work Wisely Wednesday

Your thinking	_____ 's method	_____ 's method	_____ 's method

Throwback Thursday

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Find the Flub Friday

Try the problem on your own:	What type of error was it? <input type="checkbox"/> CARELESS: Writing The Wrong Number Not Following Directions <input type="checkbox"/> COMPUTATION: Adding, Subtracting, Multiplying, or Dividing Incorrectly <input type="checkbox"/> PRECISION: Work Too Messy to Understand Dropping a Negative Sign Forgetting Parentheses Missing Units Lack of Labeling Incorrect Notation <input type="checkbox"/> PROBLEM SOLVING: Not Following Rules of Algebra Failure to Complete all of the Steps Not Showing Thinking for Each Step
Justify your classification with a complete sentence:	

This week I learned...

One thing that surprised me this week was...

I may have gotten more from this class this week if.....

An example...

Warm-ups

Monday's date:

Name:

Monday: Counting Circle

No writing until the end!

Count by:

Starting at:

Talking Topics Tuesday

Topic:

Agree•Disagree•Unsure•Agree•Disagree•Unsure

Round 1:	Round 2:	Round 3:
Do you Agree, Disagree or Unsure and STATE WHY / _____ because _____	Comment on another member's idea: I agree with _____ because _____ / I disagree with _____ because _____ I changed my mind based on _____'s comments because _____	Any more ideas to share? Do we all agree or all disagree? (record the result below)
1- all agree _____ all disagree _____ or A _____ D _____ U _____	a. One helpful question: • was asked by...? • was helpful because...?	
2- all agree _____ all disagree _____ or A _____ D _____ U _____	b. Who in your group changed their mind? • about what? • whose ideas persuaded them?	
3- all agree _____ all disagree _____ or A _____ D _____ U _____	c. On a scale of 1 to 10, How hard or easy was it for your group to agree? Why?	
4- all agree _____ all disagree _____ or A _____ D _____ U _____	d. On a scale of 1 to 10, how hard or easy was it for your group to keep challenges sensible & respectful? Why?	
5- all agree _____ all disagree _____ or A _____ D _____ U _____		
6- all agree _____ all disagree _____ or A _____ D _____ U _____		

What do you think Wednesday

Description: _____

My Estimate

Answer: _____

GUESS:	TOO HIGH	<input type="text"/>	<div style="border: 1px dashed black; padding: 10px; width: 100px; margin: 0 auto;"> My Estimate </div>
	TOO LOW	<input type="text"/>	

Error: + / - _____

Error as a %: _____

My Reasoning:

Tough Patterns Thursday

1. What comes next? Draw a picture, or write an explanation	2. How do you see this growing?	
3. What would the 10 th step look like?	4. Is this linear, quadratic, exponential, or none of these?	5. Try to develop an equation to represent the scenario.

Find your way Friday

Your thinking:

_____ 's thinking

_____ 's thinking

What did you learn this week?

What do you need more help on?

Share 1 good thing from this week

It is unreasonable to ask a professional to change much more than 10 percent a year, but it is unprofessional to change by much less than 10 percent a year.

-Steve Leinwand

What skills do you want to develop in your students?

What skills do you want to develop in your own teaching?

List of warm up ideas with links: bit.ly/NCTMwarmuplist

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Consider one of the ideas discussed today that you hadn't considered before.

How can you apply this in your classroom?

How would you adapt it to meet your style?

Questions?

Please complete this brief survey
before you go:

bit.ly/warmupsurvey

RESOURCES

- <https://algebrabrainiac.wordpress.com/2013/09/09/made4math-weekly-warm-up-sheet/>
- <https://algebrabrainiac.wordpress.com/2013/10/22/made4math-weekly-warm-up-sheet-2-0/>
- <https://crazymathteacherlady.wordpress.com/2015/03/20/filing-cabinet-of-warm-up-activities/>

THANK YOU!

**Feel free to tweet at me:
@lisabej_manitou**