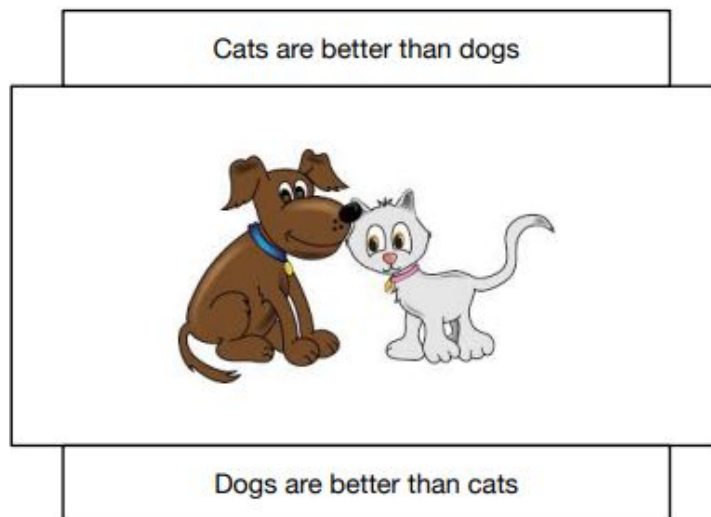


Prepare an answer and an argument for these statements:

- Pick a position:



- The easiest way to calculate  $27 + 8$  is \_\_\_\_\_.

**Welcome!**

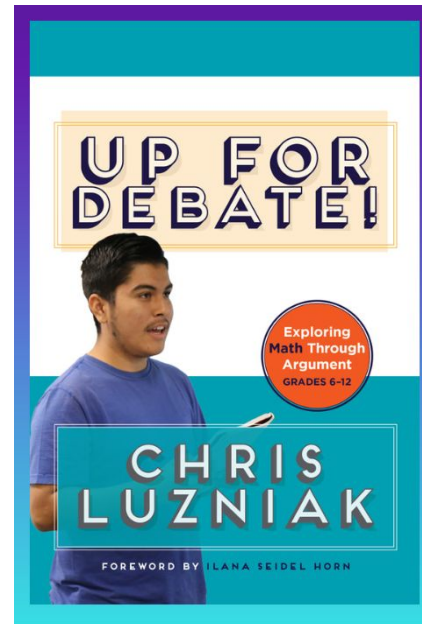
Your host

**Dee Crescitelli**



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# Up for Debate!



## Argument as Debate

- Argument: a statement made with sound reasoning. Every argument has two key parts:
  - Claim– the controversial statement being made
  - Warrant- the justification for the claim

**ARGUMENT = CLAIM + WARRANT**

# Soapbox Debate

Cats are better than dogs



Dogs are better than cats

My CLAIM is \_\_\_\_\_,  
&  
my WARRANT  
is \_\_\_\_\_.

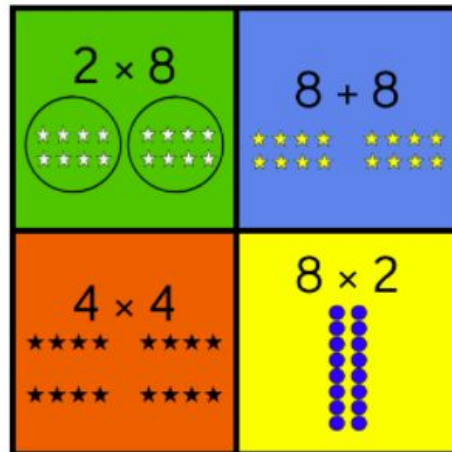
# Soapbox Debate

My CLAIM is \_\_\_\_\_,  
& my WARRANT  
is \_\_\_\_\_.



**The easiest way to  
calculate  $27 + 8$  is...**

# Which one doesn't belong?



NUMBER 38

from Elizabeth Brandenburg

My CLAIM is \_\_\_\_\_, & my  
WARRANT is \_\_\_\_\_.



<https://wodb.ca/numbers.html>

## Notes on using Soapbox Debate

- Keep it brief. Keep it simple. 3 to 5 responses, avoiding lag time. It really can be just one sentence- a warrant & a claim.
- Remind folks that it is OK to repeat a claim, but with the goal of having a different warrant. We can build on each others' thinking this way!
- Teacher controls the timing- have 2-3 arguments for a question & move on, or dig in for a good, in-depth debate on one meaty question.



# Always, Sometimes, Never

- The fraction with the larger numerator is the larger fraction

My CLAIM is \_\_\_\_\_, & my  
WARRANT is \_\_\_\_\_.



## Extended Response is Claim & Warrant!

- This framework can be used to help students explain their thinking in written form.

**Activity #6: Which is Bigger? (Fraction Number Sense)**

Each problem below has a set of fractions. Determine which of the fractions is largest WITHOUT using a calculator. Be sure each claim (which is bigger) has a warrant!

1)  $\frac{1}{5}$     $\frac{1}{9}$    Claim: \_\_\_\_\_  
Warrant: \_\_\_\_\_

2)  $\frac{8}{10}$     $\frac{10}{8}$    Claim: \_\_\_\_\_  
Warrant: \_\_\_\_\_

3)  $\frac{8}{15}$     $\frac{9}{20}$    Claim: \_\_\_\_\_  
Warrant: \_\_\_\_\_

4)  $\frac{7}{8}$     $\frac{11}{12}$    Claim: \_\_\_\_\_  
Warrant: \_\_\_\_\_



# Why Debate...in STEM?

- Meaningfully Engages Large Classes
- Danielson connections
- Improves Graduation Rates & College Readiness
- Common Core connections:
  - CCSS.Math.Practice.MP3 Construct viable arguments and critique the reasoning of others.**
    - *“students understand and use stated assumptions, definitions, and previously established results in constructing arguments...They justify their conclusions, communicate them to others, and respond to arguments of others.”*
    - *“students try to communicate precisely to others...they have learned to examine claims and make explicit use of definitions.”*

~Chris Luzniak, Global Math Department presentation (2020)

A decorative graphic consisting of a green grid of squares that tapers to a point on the right side, positioned above the hashtag text.

# #DebateMath

<https://www.luzniak.com/debate-math.html>



# KCM Support for Educators



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