

# Math vs English: A False Dichotomy

Math and English are neither  
enemies nor opposites

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# Adversaries

- “I’m good with numbers, not words.”
- “I don’t like math, I’m good at English.”
- “It’s ok to be bad at math.”

# Math & English

- *English = language of region*
- Both useful
- Both require work/practice
- Both needed



# Competence

- Competence in English means what?
- Expectations (read, talk)
  
- Competence in Math means what?
- Expectations (build rockets, bridges, divide big #s)

# What is Math?

- Logic/Reasoning
- Number sense
- Short term memory
- Long term memory

# What is in English?

- Nouns (objects)
- Verbs (actions)
- Adjectives (description)
- Prepositions (relative description)
- Connections (articles, conjunctions)

# Which is Better?

- Depends on the arena.
- Teaching uses language
- Stories need English
- Calculations need Math

# Reading is fun!

- I cnduo't bveleiee taht I culod aulacly uesdtannrd waht I was rdnaieg. Unisg the icndeblire pweor of the hmuan mnid, aocdcrnig to rseecrah at Cmabrigde Uinervtisy, it dseno't mttar in waht oderr the lterets in a wrod are, ...Tihs is bucseae the huamn mnid deos not raed ervey ltteer by istlef, but the wrod as a wlohe.



# Reading is fun!

- Is spelling important?
- How does this affect math teaching?

# Reading is fun!

- You this read wrong.
- Ever had that awkward when you read something wrong?
- And said “moment” after awkward?
- How many times did you go back and reread these sentences?



# Reading is fun!

- Is every word important?
- Divide by                      divide into
  
- How does this affect math teaching?

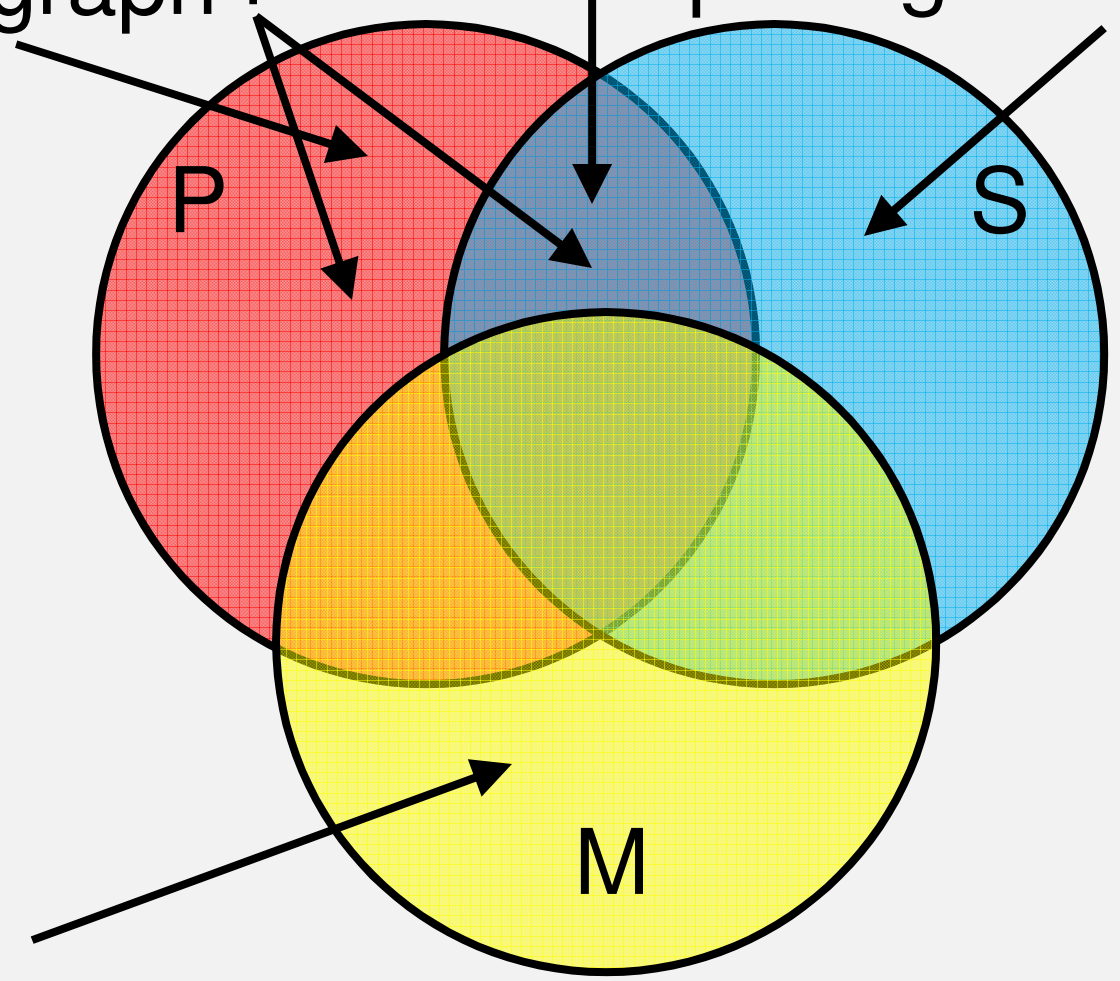
# Dictionary

- When are they used?
- How are they used?
- Calculator = dictionary

# English Eccentricities

- Strange behaviors
- Difficulties with the language
- i.e. vs e.g.

Heterograph Homophone Homograph Heteronym  
Communication Spelling



Synonym

Meaning

# Fun with English

- Pronunciation
- Examples for word categories
- Emphasis
- Spelling “rules”
- Pluralization “rules”

# Pronunciation

**both**

**moth**

**bother**

**mother**

**boing**

**doing**



# Heteronyms

- Wind
- (\_\_\_\_\_ the clock, \_\_\_\_\_ in the trees)
- Read
- (\_\_\_\_\_ last night, \_\_\_\_\_ a good book)
- Dove
- (\_\_\_\_\_ cooed sweetly, \_\_\_\_\_ into the lake)

# Contronyms

- Same word; opposite meanings
- Dust (to remove/add particles)
- Cleave (separate; attach)
- Custom (normal; special)
- Ravel (entangle; disentangle)
- Bolt (tie down; run away)

# Homophones

- to, ...
- pare, ...
- for, ...
- some, ...

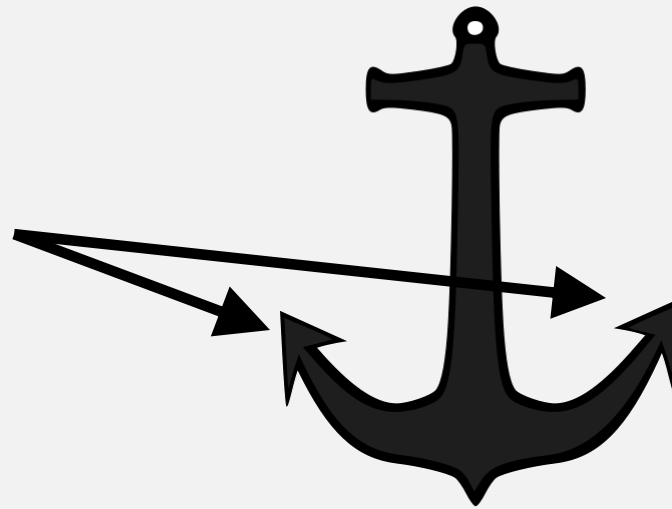
# Others?



# Homonym

fluke

- Stroke of luck
- On an anchor
- Whale's tail
- Type of fish



# Other Words

## Bow

- take a \_\_\_\_\_
- to submit
- tie a \_\_\_\_\_
- shoot a \_\_\_\_\_

## Bough

- on a tree

# Homophone confusion

- Eye halve knot scene ewe.
- Witch teem one?
- Raze won sighed hire.

# English “Rules”

- *i* before *e*, except after *c*, unless sounding like *A* as in *neighbor* or *weigh*.
- coefficient
- science
- weird



# Pluralization

- ox → oxen
- goose → geese
- foot → feet
- mouse → mice
- 5 feet tall

# Learning the topics

## Math

- Memorization
- Patterns
- Consistent Rules
- Recursive
- Denied exposure

## Language

- Memorization
- Patterns
- Visual, oral, aural
- Cumulative
- Frequent exposure

# Math

- Broken rules = ?
- $\sqrt{-1}$
- Universal language
  
- Discoverable rules (exponent)
  
- Start learning late (later)

# Application

- Point out proficiency in English
- Point out work required to get there
- Point out complexity of English
- Highlight proficiency in Math



# Math vs. English

They work together, not conflict.



# Questions?

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