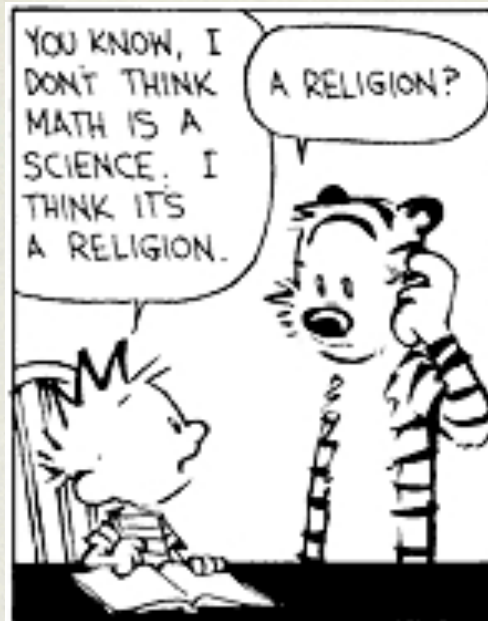
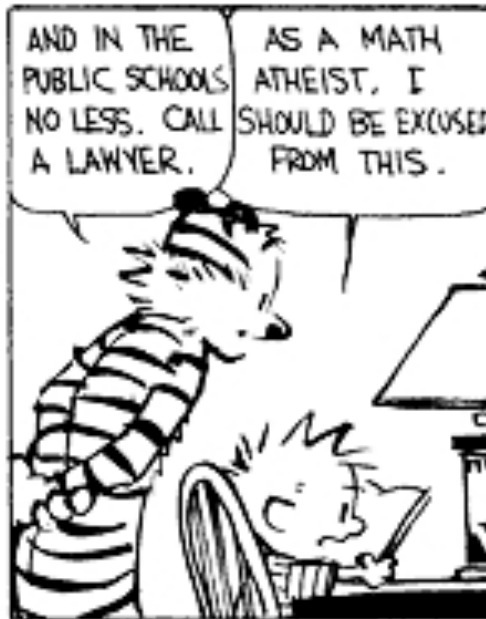
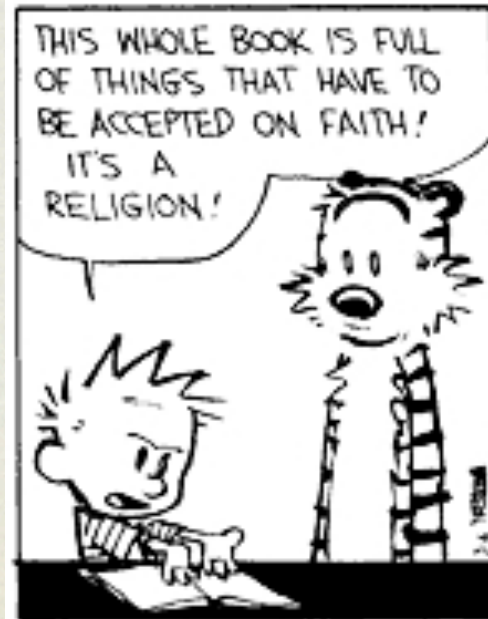


# AOK: MATHEMATICS

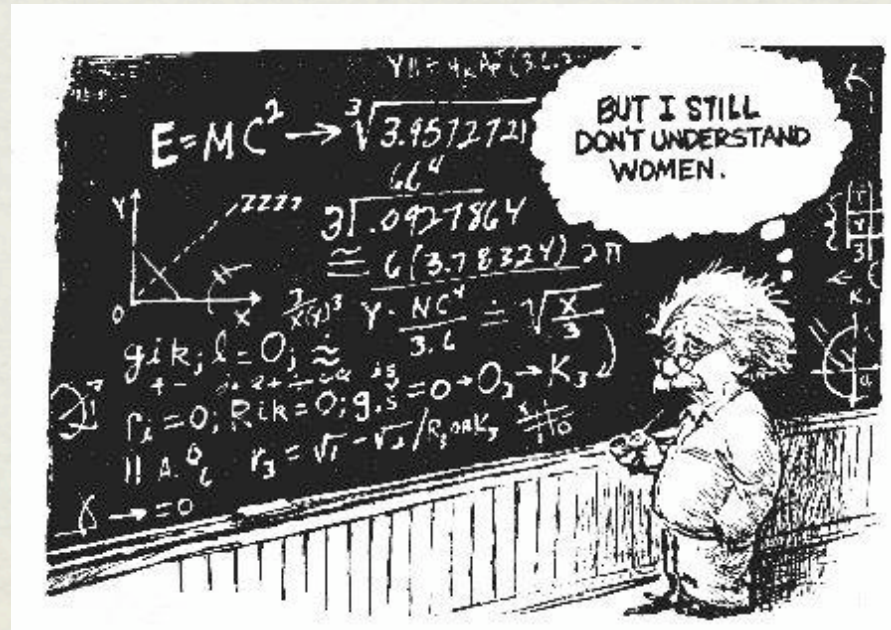


YEAH. ALL THESE EQUATIONS ARE LIKE MIRACLES. YOU TAKE TWO NUMBERS AND WHEN YOU ADD THEM, THEY MAGICALLY BECOME ONE *NEW* NUMBER! NO ONE CAN SAY HOW IT HAPPENS. YOU EITHER BELIEVE IT OR YOU DON'T.



# KNOWLEDGE ISSUES? WHAT ARE THE POTENTIAL KNOWLEDGE CLAIMS?

- What does it mean to say that mathematics can be regarded as a formal game devoid of intrinsic meaning? If this is the case, how can there be such a wealth of applications in the real world?



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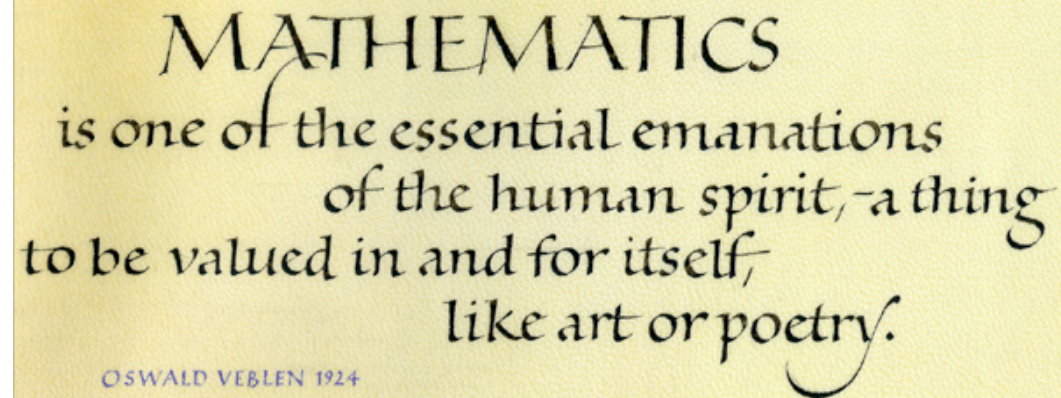
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# KNOWLEDGE ISSUES? WHAT ARE THE POTENTIAL KNOWLEDGE CLAIMS?

- What does it mean to say that mathematics is an axiomatic system?
- Is mathematics invented or discovered?
- What are the roles of empirical evidence and inductive reasoning in establishing a mathematical claim?
- Are all mathematical statements either true or false?
- Is mathematics simply a tool?

# WHAT IS THE KNOWER'S PERSPECTIVE? WHAT OTHER PERSPECTIVES DO WE NEED EVALUATE?

- Methods of proofs/knowing some mathematics – by contradiction/contrapositive/exhaustion
- Cultural bias within mathematics, strength or curse?
- Why do I have an emotional response of maths? And why is it so hard to communicate?
- Creativity/imagination



MATHEMATICS  
is one of the essential emanations  
of the human spirit, - a thing  
to be valued in and for itself,  
like art or poetry.

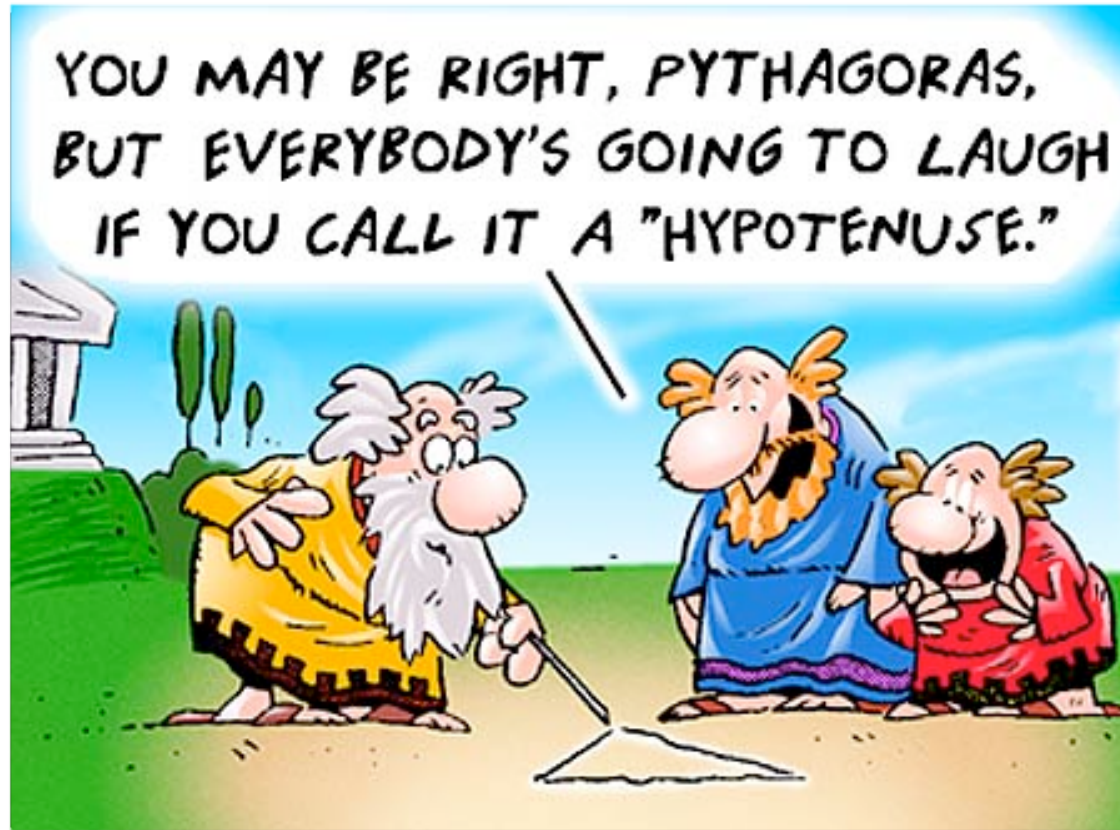
OSWALD VEBLLEN 1924

# LINKS TO OTHER AOK/ WOK

- Can mathematics be characterized as a universal language?
- Why is it that mathematics is considered to be of different value in different cultures?
- To what extent is mathematics a product of human social interaction?
- Lagemaat questions at the end of each chapter

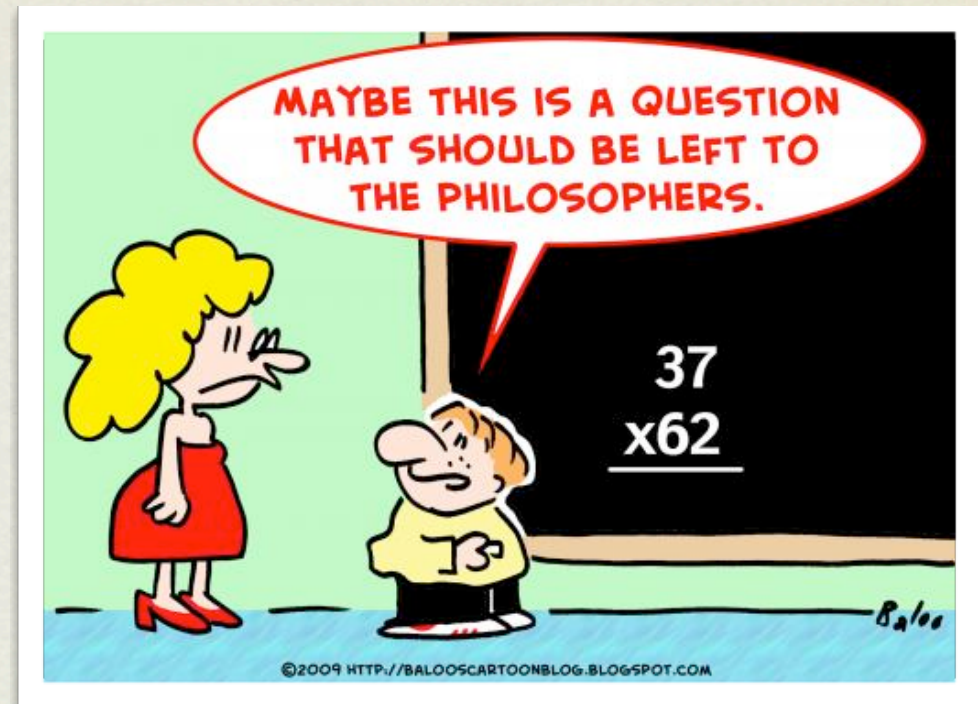
# AT THE CONCLUSION OF THIS UNIT YOU WILL KNOW:

- how to present an argument in a logical, organized fashion.



# AT THE CONCLUSION OF THIS UNIT YOU WILL BE ABLE TO:

- understand there are different perspectives of mathematics
- be able to understand the relationship with other AoK's
- link back to their own mathematics subject and be able to apply your



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