

Tok Essay

Prompt 3.

Is the power of knowledge determined by the way in which the knowledge is conveyed? Discuss with reference to mathematics **and one other** area of knowledge.

Plan.

My other area of knowledge is human sciences. (?)

Define 'power of knowledge': The influence that knowledge has on the world. Ex:
Historical knowledge may be more powerful, i.e. recounted more, if it was written in a
more aesthetic way.

Reading / material for real life examples:

- A Mathematician's Apology
- Thinking, Fast and Slow (maybe Nudge as well?)
- Philosophy of Mathematics and Natural Sciences
- Mathematics, Queen and Servant of Science

Hopefully this has enough material.

Then my other area of knowledge, Human Sciences, would relate to economics or psychology...

Conjectures:

The way in which knowledge is conveyed: From a figure of authority. Authority is useless (or has very little use) in the power of mathematical knowledge. Fermat, the greatest mathematician at his time, claims he has proven his last theorem $a^n + b^n = c^n$. Yet, before Wiles's proof and verification, the theorem is not treated as much more plausible than, say, nonexistence of odd perfect numbers.

The way in which knowledge is conveyed: motivation, salience...

A *model* is a set of rules, abstractions, simplifications, and theory, through which knowledge may be interpreted.

Descartes' invention of algebraic geometry:

mathematical proof vs empirical evidence

1 Introduction

hallo