**Mathematics and knowledge**

*TOK math guest lecture by Mr. Chase*

1. **Is mathematics Invented or Discovered? -** Aristotle vs. Plato
2. **The beauty of mathematics -** Why do mathematicians do what they do?
3. **What parts of mathematics are we free to invent? -** Formalism
4. **The usefulness of mathematics -** Why does mathematics ‘work’?
5. **A justification of math education -** A liberal education

**Jokes & Quotes**





<taken from xkcd.com>

“Mathematics is a queen of science.” - Carl Friedrich Gauss

“Some of you may have met mathematicians and wondered how they got that way.” - Tom Lehrer

“Wherever there is number, there is beauty.” - Proclus

“It is impossible to be a mathematician without being a poet in soul.” *-*Sofia Kovalevskaya

“The mathematician does not study pure mathematics because it is useful; he studies it because he delights in it and he delights in it because it is beautiful.” - Jules Henri Poincaré

“Mathematics is a game played according to certain simple rules with meaningless marks on paper.” - David Hilbert

“It’s like a gorgeous painting that also functions as a dishwasher!” – Ben Orlin