Connecting Mathematics

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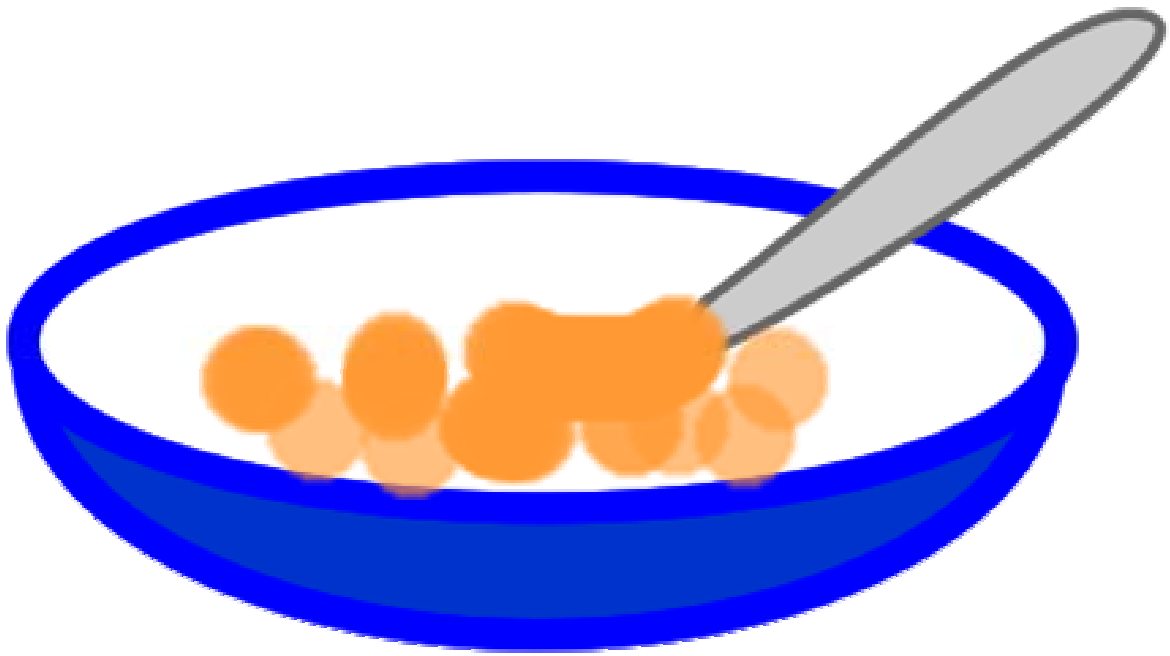
http://thesaurus.maths.org

Pattern Matching - 1



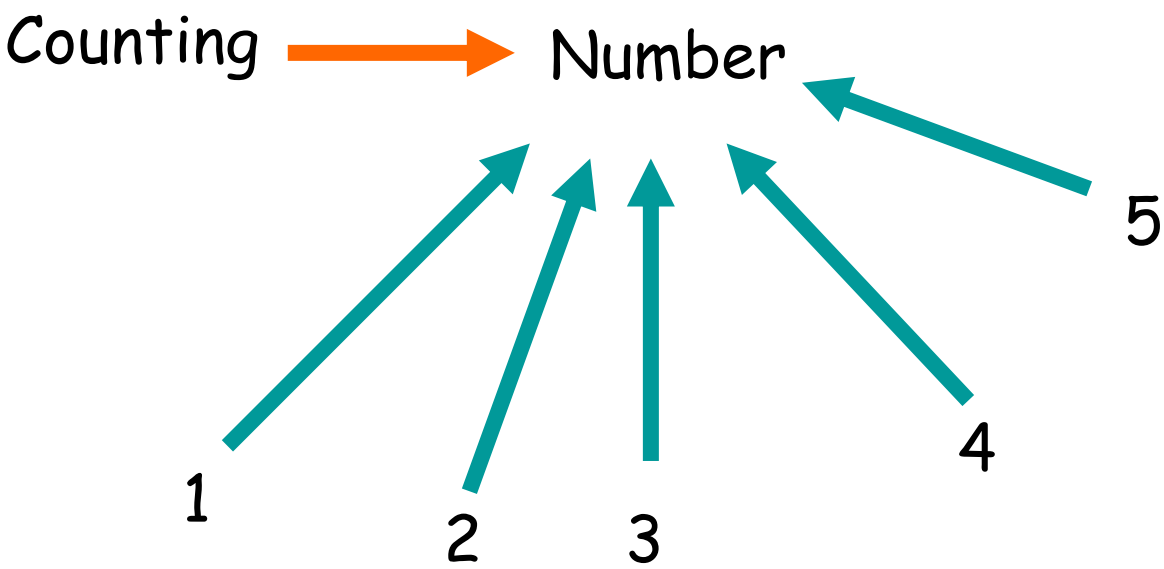
Pattern Matching - 2

Pattern Matching 3

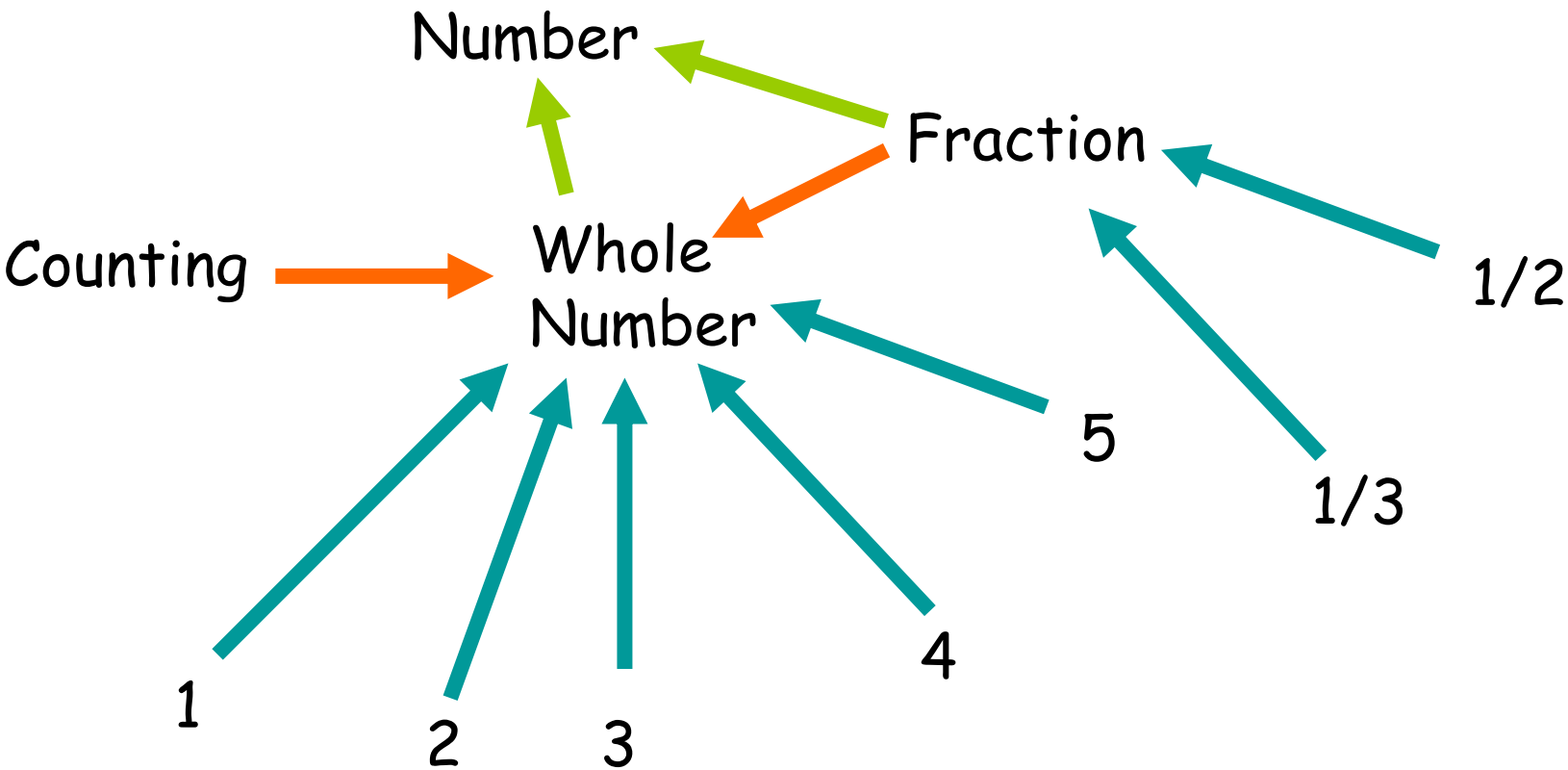
Pattern Matching 4

Pattern Matching 5

My first ontology



My second ontology

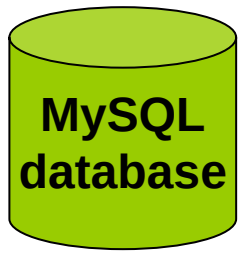


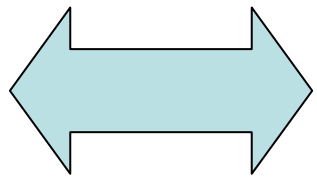
The major languages

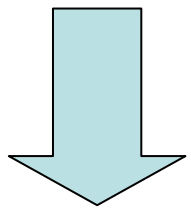
- Danish
- English
- Finnish
- Hungarian
- Lithuanian
- Polish
- Slovak

Architecture

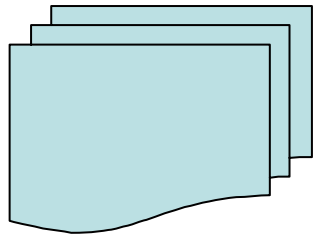
Editor







Web Publication
in XHTML &
MathML



LaTeX copy
in:
Danish
English
Finnish
Hungarian
Lithuanian
Polish
Slovak

Why Protégé?

- I needed to edit an ontology.
- Fluid schema – allowed experimentation.
- Easily customised.
- Unicode essential to encompass Eastern European languages.
- Access to visualisation tools – especially TGVizTab.

Solutions

- MMKB slicer developed to import ‘slices’ of the data for editing.

- TGVizTab customised to MMKB viewer

Some further ideas

- Thesaurus based indexer using Porter stemming algorithm?
- Child-friendly editing
- Child-friendly storage
- Synonyms rendered in mathematical notation. e.g.

$$\int \sin\theta d\theta$$

Problems

- TGVizTab excellent, but needed some customisation – restricted to showing only concepts and relations of interest.
- I need a bigger laptop. 192 Mb RAM isn’t enough!
- Synonyms v. Canonical Names