### Math History Topic & Search Tips

#### Focus

Focusing in on a topic

Don’t go too broad for a topic. You’ll like want to focus in a bit. For example:

- History of numbers → History of zero
- Egyptian mathematics → Egyptian numerals
- History of calculus → The Leibniz vs. Newton debate

Use the previous sources to help think about a specific topic. Items in search results (see next box) can also help you narrow down – but don’t go so narrow that you can’t find enough info!

#### Search Tools

- **Browse Journals:**
  - The Mathematics Teacher
  - Mathematics Teaching in the Middle School
  - College Mathematics Journal
  - Historia Mathematica

- **History Articles:**
  - America History & Life (US & Canada)
  - Historical Abstracts (rest of world)

- **Other Sources:**
  - Scopus (all topics, esp. STEM)
  - Business Source Complete (Articles)
  - Mathematics History Subject Guide
  - Subject Guides for other subjects

- **Books:**
  - OSU Library Catalog
  - OhioLINK Catalog
  - Electronic Book Center

- **Education Articles:**
  - ERIC

- **Mathematics Articles:**
  - MathSciNet

- **Citation Help:**
  - Citation Guides
  - Use Find It! to format a citation (see next page)

- **Annotated Bibliography:**
  - Annotated Bibliographies guide

#### Access Books & Articles

- Ebooks will have a link in catalog
- Print books can be sent to a library location using:
  - Request (OSU Library Catalog)
  - Request (OhioLINK Catalog)
- In article databases, use Find It! to check for access.

#### Search Tips

- Stick to main concepts
- Use synonyms or similar words
  - Find some by reading results
- Try multiple searches
- Use Request in OSU Library Catalog to switch to OhioLINK catalog
- See more search tips, including advanced options and tutorials, on next page
Search Tips

Selecting search terms

- Use terms reflecting main concepts – usually nouns
  - Don’t use sentences, statements, or questions
  - Avoid terms like effect/affect, if, of, a/an/the, etc.
- Think of synonyms
  - numbers → numerals
- Think of plural, singular, and other word variations
  - numeral → numerals

Use “ ” to search an exact phrase of 2 or more terms

- “doubling the cube”

If no “ ” are used, the search tool reverts to the default (usually an AND search)

Use Boolean operators between concepts

- AND to find all terms:
  - zero AND history
- OR to find at least one of the terms
  - Sumerian OR Babylonian
- NOT (sometimes AND NOT, such as in the OSU Library Catalog) to eliminate a term
  - transcendental NOT pi

In most search tools, AND is the default if no operators are entered.

Use truncation/wildcards to find word variations

- * is commonly used to replace multiple characters
  - Babylon* AND num*

Wildcard/Truncation characters can vary according to search tool, so see the search tool’s HELP area for more info. Use with care. Cat* will find cat, cats, catalog, catastrophe, etc.

Use ( ) for grouping/nesting when mixing Boolean operators for very advanced searching

- Group similar items with OR using ( ) and combine with another term
  - (Babylon* OR Sumer* OR Mesopotamia*) AND num*
- Can also be used for using all 3 operators – in such cases, use multiple nesting
  - ((irrational* OR transcendental*) AND num*) NOT (pi or e)

Many search tools allow for multiple search boxes with a Boolean operator of your choice between them. You can break up your search concepts that way too. Default operator within a box is still usually AND unless specified otherwise.

Use Find It! to format a citation:

1. Click Find It! button in a database.
2. In resulting screen, choose Export Citation (usually on right panel)
3. Choose HTML option and choose a citations type (APA for example)
4. Your citation should then appear.
5. Double check your citation against the item to make sure nothing is in error or missing