

## MATH 1136 HISTORY PAPER

### 1. SUGGESTED TOPICS

- Eratosthenes' method for determining the circumference of the earth. See p. 455 of our text for reference to an activity and a childrens' book
- History of the SI units (aka the metric system). Include geopolitical motivation, historical context, etc.
- The use of perspective in painting and drawing. When and how did this begin, what were early responses to its use?
- Life and times of Cavalieri. Include historical context, contemporaries, and legacy.
- Compass and straightedge constructions. Historical development. Why were these so interesting? What constructions are or are not possible (and who figured these questions out)?
- Archimedes and circle area or sphere volume. Why was he interested in these? How did they influence other work? Include historical context.
- Brahmagupta and pi. What did Indian mathematicians know about pi? Why were they interested? How did this influence other work? Include historical context.
- The Pythagoreans!

### 2. RUBRIC

Papers should be 400 – 600 words, and will be evaluated on the following criteria:

#### CONTENT

- Complete: addresses topic and related questions
- Reliable: cites diverse reliable references
- Coherent: main points are well-explained, make sense
- Interesting: mathematically, historically, and/or personally

#### TECHNICAL

- Grammatical: spelling, punctuation, word use, etc.
- Formatting: is consistent, not distracting

The scale for each criterion will be:

3 = Great!

2 = Good; maybe minor issues

1 = OK; needs improvement in this area

0 = Major problems or not present

The content criteria will count for 80% of the points, and the technical criteria for 20%.

### 3. SUGGESTED REFERENCES

I assume most of you will begin with an internet search, and I think that makes sense. Wikipedia is often a great place to start, but definitely don't stop there. Find and read the relevant references listed there, or elsewhere. The MacTutor History of Mathematics archive is another good encyclopedic starting point: <http://www-history.mcs.st-and.ac.uk/>

I strongly recommend that you make use of our library resources, either in Newark or Columbus. The librarians in Newark are constantly asking me if there are more ways they can be helpful to students, so I'm sure they'd love to talk with you! I have no doubt that the librarians in Columbus feel the same way :)