

## History of Mathematics-M143

### Midterm 1 Study Guide

#### Topics

#### I. Numeration Systems:

Classification: (Can you match different numeration systems you learned with their type?)

Simple Grouping    Multiplicative    Positional    Mixed

ARITHMETIC WITH:

Babylonian cuneiform

Egyptian Hieroglyphic

Chinese-Japanese

Practice Example: Represent the number 132,238 from our system into each of the three systems above.

II. Egyptian Method of False position.

III. Abundant, Perfect, and Deficient Numbers.

IV. Babylonian Square Root Approximation.

V. Squaring triangles, squares, and polygons using compass and straightedge.

VI. Solving indeterminate linear Diophantine equations in two variables.

VII. Solving determinant polynomials using 'depression' method.

VIII. Names and Dates: Can you match these terms to approximate dates?

- |                      |                |
|----------------------|----------------|
| a. Thales of Miletus | g. Diophantus  |
| b. Pythagoras        | h. Brahmagupta |
| c. Euclid            |                |
| d. Egyptians         |                |
| e. Babylonians       |                |
| f. Archimedes        |                |