Homework for Math 3010 §1, Fall 2025

A. Treibergs, Instructor

January 8, 2026

Our text is by David Burton, *History of Mathematics: An Introduction 7th ed.*, McGraw Hill 2010, ISBN-10: 0073383155, ISBN-13: 978-0073383156. It is available via Inclusive Access (Bookshelf tab in Canvas). Please read the relevant sections in the text as well as any cited reference. Assignments are due the following Friday, or on April 19, whichever comes first.

Your written work reflects your professionalism. Homework is to be written legibly on paper. Do not crowd your work nor write too small for me to read. Please copy or paraphrase each question. Make sure your solutions are complete, self contained and written in good technical English. This means that you should write in complete sentences, provide adequate explanation to help the reader understand the structure of your argument, be thorough in the details, state any theorem that you use and proofread your answer. Theorems from the text and notes should be stated, and not merely cited by number. Any sources you use other than the text and notes (such as looking up the answer on line) should be cited.

Homework from Wednesday to Monday will be due Friday. Late homework that is up to one week late will receive half credit. Homework that is more than one week late will receive no credit at all. Homework that is placed in my mailbox in JWB 228 before 4:00 pm Friday afternoon will be considered to be on time. All homework must be handed in by Apr. 27.

> Please hand in on paper problems A on Friday, Jan. 9.

A. Exercises from Burton's *The History of Mathematics*.

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1.2     18[3]
2.3     51[1, 2, 7, 13]
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> Please hand in problems B1 – B3 on Friday, Jan. 16.

B1. Exercises from Burton's *The History of Mathematics*.

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1.3     28[2, 3, 4]
2.4     61[1, 2]
2.5     71[3]
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B2. Compute the sum using Babylonian arithmetic. Convert the summands and your answer to decimals and check that your addition is correct.

$$(5, 51, 12, 49) + (13, 45, 19) = ?$$

B3. From Bunt *et. al.* 63[8].

Solve the following problem that occurs on a Babylonian tablet. Given that the circumference of a circle is 60 and the length of the saggita $\overline{AB}$ is 2, calculate the length of the chord $\overline{CD}$ in the figure.