

Assignment for Week 1  
Math 300 Spring 2004

There is no class on January 19. Outline to be turned in on Wednesday Jan 21; plagiarism essay at the beginning of class on January 26.

Use separate sheets of paper for each of these two items and put your name on all sheets:

0) NOT to be turned in: What does the following sentence from the Chicago Tribune on Jan. 8, 2004 mean?

Between 6 and 8PM. most days in November, up to 70 per cent of flights arrived late at O'Hare.

1) Due Jan. 21: Turn in a half-page outline for the first essay. The outline should be specific to your essay. It should include a sketch of the procedure for computing either  $agi$  or the average area of a crystal. Pay particular attention in this sketch to how you take account of the fact that the three micrographs have different scales.

2) Due Jan. 26: Write a brief explanation of plagiarism. You may use a dictionary. You might also consult the Guidelines Regarding Academic Integrity in the UIC Undergraduate Catalog. (Be careful not to plagiarize in this assignment!) One goal of Math 300 is to know and understand what plagiarism is. In particular, it is important to understand the difference between using information and plagiarizing a source. Plagiarism committed in this course will result in a failing grade and can result in additional disciplinary action by LAS.

If I found the following passages in an essay with no attribution, the student would receive an F for that essay and possibly for the course. How could the student make use of these sources legitimately? Give a one sentence or two sentence answer for 2A and 2B.

A: Planimetric (Jeffries) method: A photomicrograph of a known area ( $A$ ) and magnification containing at least 50 grains is obtained. An average apparent grain area ( $a$ ) is calculated (albeit a rough estimate) by counting the number of grains ( $n$ ) then dividing the area of the micrograph by this number.  $a = A/n$

B: In the Introduction to Arithmetic (Arithmetike eisagoge), Nicomachus gives his account of the name harmonic proportion (which defines the harmonic mean) in contradistinction to the arithmetic and geometric proportions (which define the arithmetic and geometric means, respectively). He writes as follows:

"The harmonic proportion was so called because the arithmetic proportion was distinguished by quantity, showing an equality in this respect with the intervals from one term to another [for if  $m$  is the mean between  $a$  and  $b$ , then  $a-m$  is precisely the same as  $m-b$ ], and the geometric by quality, giving similar qualitative relations between one term and another [for  $a-m:m-b$  is precisely the same ration as  $a:m$  and  $m:b$ ], but this form, with reference to relativity, appears now in one form, now in another, nether in its terms exclusively nor in its differences exclusively, but partly in the terms and partly in the differences [here,  $a-m:m-b$  is the same ratio only as  $a:b$ ]; for as the greatest term is to the smallest, so also is the difference between the greatest and the next greatest, or middle, term to the difference between the least term and the middle term, and vice versa" (II.25, trans. by Martin Luther D'Ooge)

Note: Item 2A: This is the html version of the file:  
<http://www.chems.msu.edu/classes/f03/250/FS03-II.doc>.

Item 2B is from a listserve: Subject: Re: [HM] Where did the harmonic series take its name from?  
Author: Michael N. Fried [jmfried@revivim.org.il](mailto:jmfried@revivim.org.il); Date: Thu, 10 Apr 2003 11:59:19 +0200