

Geometry 1H

Preliminary Notes – Course Syllabus/Class Expectations

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August 21, 2009

(version 1.3)

Text: Geometry, by Moise & Downs.

Topics:

1. Symbolic Logic and Reasoning
2. Introduction to Geometry on the plane
3. Congruence
4. Similarity
5. Area

Website: My website

<http://www.tetrahedra.net> contains this document and other information for the class.

Supplies:

- a three ring binder divided into five sections
- a ruler, showing both inches and centimeters
- pencils and an eraser
- a red pencil and a blue pencil
- a compass and a protractor

Binder Organization Label the dividers for your notebook as follows:

- Daily Work and Notes - Most of your daily work, both classwork and homework should be done in the graph paper notebook.
- Constructions
- Quizzes and Tests
- Definitions
- Postulates & Theorems

What is Geometry? The word *geometry* comes from the Greek roots *geo* (earth) and *metron* (a measure). Euclid's *Elements* (translated into English by Heath) was well read by Abraham Lincoln and is still available as a Dover paperback. Many lawyers (and other people who make a living using deductive reasoning) credit their 10th grade geometry class with providing a strong introduction to logical reasoning. Take a look at <http://www.cut-the-knot.org/WhatIs/WhatIsGeometry.shtml> for more background. Just remember, "without geometry, life would be *pointless*."

Cooperative Learning: Math is not a spectator sport. By working in small teams of three or four students, you will learn math by doing math.

Guidelines for Working in Teams

1. You are responsible for your own behavior. (No student has the right to interfere with another student's right to learn.)

2. You must be willing to help anyone in your team who asks. (But don't give the answer or tell someone how to work a problem unless you are asked.)
3. Only when ALL STUDENTS at your team have the SAME question may you ask the teacher for help.
4. Use group voices. (The volume of each student's voice should remain reasonable and within the hearing range of his/her group only.)

Homework: You will be assigned homework in preparation for every class meeting. Homework will be checked. When assignments are collected, they will be returned for filing in your binder. In general, most of the daily homework should be written in the graph paper notebook. Unless otherwise stated, I do not expect you to spend more than 45 minutes on any one night assignment.

Getting Help: When not teaching, I can usually be found in the office behind room S-202 (just above my classroom). You should feel free to stop by my desk during mods 4-5 or mods 9-10. You can also make an appointment to see me.

Constructions: One of many nice things about this class, is the opportunity to learn how to use a compass and straight-edge to produce interesting figures. Construction problems will be assigned every other week. A computer based geometric supposer will be available on my website. Students will learn how to use them in class and at any internet connected computer. (Such computers are available

in the Lowell library and many other places.) A construction problem set will be given out once every two weeks. You will have two weeks to work on the problems. The due dates for these construction problem sets will alternate with test weeks.

Grading: Grades for each marking period will be weighted approximately according to the following percents:

- Classwork/Homework/Constructions 20%
- Quizzes/Tests 70%
- Participation 10%

Tests will be given every other week. Grades are calculated based on total points, but not on predetermined cut-off levels. Students whose totals are close to each other receive the same grade; cut-offs are where there is a relatively large gap between one total and the next highest. End of semester final exam will count 20% of the semester grade.

Class Policies: You are expected to show up to every class on time and be an active participant. Students are encouraged to work with other students on regular homework assignments, but this does not mean that you should simply copy another student's homework. Tests are strictly an individual effort and cheating will not be tolerated. If you are absent, you will be expected to make up any missing assignments. Students who have an excused absence on the day of a test or quiz may makeup the exam, but need to do it during free mods – not during class time. Be sure to check the web page frequently.