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Inderkum High School
2500 New Market Dr.
Sacramento, CA 95835
2017-2018 School Year

IB Mathematics HL Year 2

Google Classroom Code: jlts6i
REMIND: text @f2g9g4 to 81010

Objectives of the course - From the IB Course Guide:

Problem-solving is central to learning mathematics and involves the acquisition of mathematical skills and concepts in a wide range of situations, including non-routine, open-ended and real-world problems. Having followed a DP mathematics HL course, students will be expected to demonstrate the following:

1. Knowledge and understanding: recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.

2. Problem-solving: recall, select and use their knowledge of mathematical skills, results and models in both real and abstract contexts to solve problems.

3. Communication and interpretation: transform common realistic contexts into mathematics; comment on the context; sketch or draw mathematical diagrams, graphs or constructions both on paper and using technology; record methods, solutions and conclusions using standardized notation.

4. Technology: use technology, accurately, appropriately and efficiently both to explore new ideas and to solve problems.

5. Reasoning: construct mathematical arguments through use of precise statements, logical deduction and inference, and by the manipulation of mathematical expressions.

6. Inquiry approaches: investigate unfamiliar situations, both abstract and real-world, involving organizing and analyzing information, making conjectures, drawing conclusions and testing their validity.

The Rule of the Room is RESPECT:

❖ RESPECT for yourself	❖ RESPECT for others	❖ RESPECT for the class and the school

Classroom Expectations
- *In addition to the school policies, students are expected to:*
1. *Be respectful of others and their property*. Profanity, vulgar language or harassment will not be tolerated and may result in detention or class suspension.
2. *Arrive to class seated underline before the bell rings with all materials required* (see below)
3. *Follow directions given by the teacher*.
4. *Produce work with integrity and honesty.*
5. *Only use electronic devices (smart phones, mp3 players, etc.) for the specified educational purpose outlined by the teacher. Otherwise, the devices are to be silent and out of sight. Devices disrupting the learning of the student or other students will be confiscated.*
- *A phone call to your parent/guardian will be made for any class detention or suspension.*

Text: *Higher Level Mathematics, 2012 edition*, Wazir and Garry, Pearson Baccalaureate.

Materials: It is HIGHLY recommended that students acquire and bring the following to class –
- Textbook (or e-edition available on mobile/tablet)
- Several notebooks dedicated for notes and assignments
- IB standard 2mm graph paper (can be printed from resources section of the website)
- Pencils (mechanical is especially helpful), erasers, black or blue Ink pens (not gel), and red pens for corrections.

Calculator: The IB mandates the use of a graphics display calculator (GDC), particularly the TI-84 PLUS CE, on portions of the External Assessment and for use during the course. Examples of problems in class and in the text, as well as class demonstrations will utilize the TI-84 PLUS CE. Please see the list of approved calculators posted on the website as well as the minimum calculator requirements for Math HL. *Policy:* There is a strict policy as to the programs allowed on these calculators

during examinations. As a result, students are subject to checks of calculators and the instructor may remove any and all programs that the IB does not allow for exams (this includes any games!).

Grading
★ Grading scale: A (100% - 90%) B (89% - 80%) C (79% - 70%) D (69% - 60%) F (<60%)
Grades will be based upon the following weights:
- o   Unit Tests   70%
- o   Quizzes/Mathematical Exploration   20%
- o   Assignments/TOK   10%

Unit Tests (70% of grade)
- Unit tests will be given at the end of each unit (see projected units on the course of study). All unit tests will be cumulative in nature but focus on (>50% of content) the most recently finished unit. Unit tests will be IB exam style and will be graded according to an IB markscheme. Some questions will be non-calculator while others will have calculators allowed. Full points on exam questions will require most work to be shown.

- Students missing an exam with an excused absence may arrange to take the exam <u>within one week</u> of the absence outside of the normal class time and be taken in one session.

- <u>*Retakes will not be permitted*</u>. It is expected that the college and career ready student will be prepared for the exam on the exam date.

- After each unit exam, excluding the Final, all students will complete an Exam Analysis assignment regardless of grade earned on the exam. The Exam Analysis assignment will act as a tool to write and explain what you did right and where you could use more help. This activity will allow students the ***opportunity to earn back a fraction of the points, up to half***, that were not earned on the exam. More about the Exam Analysis will be covered in class.

Quizzes (20% of grade)
Quizzes are formative assessments meant to gauge student learning as the unit progresses. Questions will be similar to questions seen on notes and homework assignments. Quizzes may not be retaken for a better grade. The equivalent percentage from the quiz score may be used to replace the zero score on an assignment. For example, if the student scored 70% on the quiz, any zero grades on the assignments for that quiz will be replaced with a 7/10.

Assignments (10% of Grade)
- Assignments will include problems out of the text, worksheet practice as well as Theory of Knowledge/Critical Thinking assignments which will develop mathematical writing ability in preparation of the Mathematical Exploration paper.
- Assignments are to be completed in a notebook, in pencil, with a heading that includes the assignment number and description of the assignment with page number and problem numbers.
- Assignments are due the following day and worth 10 points each. Students will be given worked solutions to some problems on the assignment and will discuss, in groups, their assignments and come up with questions. Scores will be based on completeness and participation during the group time. A 10 means the student mostly completed the assignment and was participating in the group time.
- Any work not turned in on time will be entered as a "0" in the grade book unless the student is excused absent from class. Any 0 scores for assignments may be replaced with the score from the quiz covering those assignments. See example above.
- **Students may turn in homework assignments the day it's due FOR FULL CREDIT by 3:30PM AT THE LATELST using Google Classroom in the appropriate unit assignment folder with a heading that includes the assignment number and a description of the assignment.**
- For each day of <u>excused</u> absence, the student has one day for each day missed to turn in assignments and receive full credit. *Students must write the word "Absent" and the date(s) of the absence at the top of the page to obtain full credit.* Any homework that was due the day of the excused absence must be turned in the day the student returns to class for full credit.
- **If you know in advance that you will not be in class, or a circumstance beyond your control prevented you from turning in work, make time to discuss the issue with the teacher and make arrangements to turn in work.**

IB Exams and Mathematical Exploration
There are two portions of the IB Exam process which earns you the IB grade towards the IB diploma. One is the Mathematical Exploration (also known as the "Internal Assessment" or IA) and the other is an External Assessment.

- The Mathematical Exploration is a short paper investigating a topic in mathematics, completed independently by the student. Topics will be discussed and chosen during the first part of Math HL 1 and rough drafts will be completed by the end of Math HL 1. The Mathematical Exploration is 20% of the total IB grade and will be completed during the 2nd year of Math HL. This will be discussed thoroughly in class throughout the year.
- The External Assessment is 80% of the IB grade and consists of three papers, taken on three different days:
    - Paper 1 – 2 hours, short-response and extended response questions, non-calculator, 30% of IB Grade
    - Paper 2 – 2 hours, short-response and extended response questions, GDC Required, 30% of IB Grade
    - Paper 3 – 1 hour, extended response question on Option material, GDC required, 20% of IB Grade.

Extra Credit
Extra credit is not given out in the form of assignments. A student or parent may not request extra credit assignments. However, there will be limited opportunities where extra credit may be earned. Take advantage of them!

In closing...
- ☑ **Office hours:** After school most days until 4pm and during lunch. There will be special tutorial sessions announced throughout the year either before or after school particularly before unit tests and finals.
- ☑ **My expectation:** Students are expected to take responsibility for their learning by completing assignments on time, analyzing their work and making necessary corrections, and having integrity in what they do. In college, you will be responsible for seeking help when needed and having a high level of self-discipline.
- ☑ **WORKING TOGETHER, WE ARE SUCCESSFUL!!.**

IB Mathematics HL 2 Contract

I have read and understood these class expectations, grading policy, and procedures.

Student Name (please print):_____ **Period**_____

Student Signature:_____ **Date**_____

Parent/Guardian Name:_____ **Relationship to Student**:_____

Parent/Guardian Email:_____ **Best Phone #:**_____

Parent/Guardian Signature:_____ **Date Signed**:_____

Is there anything that you (parent or student) would like me to know?

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