Exam Content Information – UH Math Contest

**NUMBER SENSE**
Any student is eligible to take the Number Sense exam. The Number Sense exam will follow the style of the [UIL Number Sense Contest](https://www.uil.org/number-sense), but students will have 30 minutes for the exam instead of 10 minutes (after being given 5 minutes to read instructions on how to use the online input system). All problems are to be solved mentally, no calculations are to be made with paper and pen/pencil, or a calculator. It will not be possible to change any input. So if a student intends to enter the fraction 11/13, and instead they type 11/14, they will not be able to change any digits/symbols that they have entered. (This simulates the in-person Number Sense exam where you use a pen and cannot erase what you write.)

**ALGEBRA I, GEOMETRY, ALGEBRA II AND PRECALCULUS**
The exams for Algebra I, Geometry, Algebra II and PreCalculus will be based upon the [Texas Essential Knowledge and Skills for Mathematics](https://www.tea.state.tx.us/student.assessment/index.html) for each course. Students are eligible to sign up for at most one of Geometry, Algebra 2, or PreCalculus provided that they sign up for an exam at or above the level of the course they are currently taking in school. Students are permitted to take both the Algebra 1 and the Geometry exams provided that their current-year course in school is Algebra 1 or below.

**STATISTICS, CALCULUS, AND PHYSICS**
Any student is eligible to take the Statistics, Calculus or Physics exams. The Statistics exam will be based on the guidelines for AP Statistics. The Calculus exam will be based on the guidelines for AP Calculus AB. The Physics exam will be based on the guidelines for AP Physics 1: Algebra-Based. The AP guidelines for the Statistics, Calculus, and Physics exams can be found at the [College Board AP Central Website](https://apcentral.collegeboard.org). 

**CALCULATOR EXAM**
The Calculator Exam is open to all students. Each student is expected to have his/her own calculator for the exam. Any calculator can be used on the Calculator Exam. Some of the questions on the calculator exam require the student to write some basic code to solve problems that would otherwise be computationally prohibitive (assigning variables, writing loops, etc.).

**SMACKDOWN COMPETITION**
The SmackDown is a single-elimination contest. More details can be found on our [SmackDown description page](https://mathcontest.uh.edu/smackdown).

**CALCULATOR POLICY**
The following calculator policies are in place for our online contest:

- **Calculators are NOT PERMITTED on the Number Sense Exam!**
  If students are taking the Number Sense contest, it is our expectation that they will honor this expectation and complete the exam without a calculator.

- **Calculators are NEEDED for the following exams:**
  - Statistics Exam
  - Calculator Exam

- **Calculators are PERMITTED - but not required - for the following exams:**
  (A calculator may save you time - but the problems can be done without a calculator. For the Smackdown elimination competition, most students choose to do the timed problems mentally.)
  - Algebra 1
  - Algebra 2
  - Geometry
  - PreCalculus
  - Calculus
  - Physics
  - SmackDown