Incoming freshmen who are interested in the SJC Honors Math Program must take a placement test on **April 27 at 9:00 a.m.** Students must **show** algebraic work. **Calculators are permitted but not required** (*note:* graphing calculators with a computer algebra system like the TI-89 are not allowed for the placement test; the TI-83 and TI-84 are fine**)**.

On the following page, you will find topics that will be covered on the exams. Please use these as a guideline as you decide the appropriate test for your child.

The tests being offered are:

Honors Algebra I/Geometry (I am currently enrolled in Algebra 1)
MUST TAKE 1-hour placement test.*

OR

Honors Algebra 2 (I am currently enrolled in Geometry and have taken a full-year course in Algebra 1)
MUST TAKE 1.5-hour placement test.* Please review Algebra 1 for this exam.
Please note that if you are taking a foreign language test, this will start after the Honors Algebra 2 exam; there is no conflict.

No cell phones, iPads, etc. will be permitted for use as a calculator.

* Students who have documentation allowing them special accommodations on tests must have their principal or teacher e-mail Mrs. Kathleen O'Connor, Assistant Principal for Academic Affairs, at koconnor@stjohnschs.org to identify their testing accommodations by April 17th.

Honors Algebra 1/Geometry
The test consists of approximately 40 problems for which students must show algebraic work. Topics on the test include:

1. Order of operations, including parentheses and other grouping symbols
2. Solving linear equations
3. Solving proportions
4. Solving simple and compound inequalities
5. Solving linear systems of equations graphically and algebraically
6. Applications of linear equations and linear systems
7. Adding, subtracting, and multiplying polynomials
8. Factoring polynomials
9. Solving quadratic equations via factoring and the quadratic formula
10. Solving and graphing linear inequalities in one and two variables
11. Solving absolute value equations and inequalities
12. Slope of a line
13. Writing equations of lines in slope-intercept form, point-slope form, and general/standard form
14. Graphing linear equations
15. Rules of exponents, including simplifying negative exponents
16. Scientific notation
17. Simplifying radicals
18. Translating verbal expressions into mathematical expressions
19. Arithmetic sequences
20. Compound interest
21. Graphs of exponential functions
22. Graphs of quadratic functions

Note: **By the end of the school year, students scheduled for the Honors Algebra 1/Geometry program should also have studied:**

1. Solving quadratic equations by completing the square
2. Solving radical equations
3. The Pythagorean Theorem
4. Simplifying, multiplying, and dividing rational expressions
5. Adding and subtracting rational expressions
6. Geometric sequences

Honors Algebra 2

Students must have taken a full year of Algebra 1 and a full year of Geometry. They must pass the Algebra 1 test on the topics stated above and a Geometry test with problems involving: special right triangles, properties of quadrilaterals, parallel lines, congruent and similar triangles, arc length, measures of central, inscribed and exterior angles, linear pairs and vertical angles.