

August 2011

Dear Parents:

Beginning in September, we receive seventh grade students whose parents believe that their children are candidates to go directly into eighth grade Algebra 1. In these cases, students take a placement test that ***is not a test of mathematics aptitude***. Rather, it is a demanding and comprehensive test of the seventh grade mathematics curriculum's content. We assume that all students can and will master the seventh grade mathematics curriculum. The question is whether or not the student has already mastered enough of the curriculum to recommend his or her success in eighth grade Algebra 1. Please know that due to the rigor of seventh grade mathematics, only a handful of students over the past five years have needed acceleration to Algebra 1 while still in seventh grade. We do not wish to impose unnecessary stress on students who have no intention of advancing this year; thus, we are requesting your very candid opinion of your child's current mathematics needs and knowledge to help decide whether your child should take the test.

The test has been revised to meet the State of Michigan Department of Education Grade Level Content Expectations for grade seven. The Ann Arbor Public middle school mathematics course meets these state expectations. Additional information on this can be found at the following website:

http://www.michigan.gov/documents/MathGLCE_140486_7.pdf

Please carefully consider the list of mathematics skills on the reverse side of this letter; it is a sample of the skills taught in seventh grade mathematics and of the types of questions found on the advanced placement test. ***If your child has already mastered all (or nearly all) of these skills and you would like us to test your child, please follow these steps:***

- 1) check off the personal traits that describe your child's behaviors regarding mathematics,
- 2) check off the curricular skills your child has mastered,
- 3) sign at the bottom, and
- 4) have your child return this to his/her math teacher no later than Friday, September 10, 2010

If your child passes the test with a strong score, he or she will be placed immediately in an Algebra 1 class. Students who have been accelerated must maintain high grades on all interim and quarter grades or be moved back to their grade level course. If your child does not receive a strong enough grade for acceleration, you will have the opportunity to consider advanced mathematics placement again as your child enters eighth grade. Our staff will consult with you at those times based on your child's performance in seventh grade mathematics.

Our teachers look forward to meeting you and learning how to best serve you and your child.

student name (please print)

parent signature

date

Advanced Mathematics Criteria

(for incoming seventh grade students who wish to test out of seventh grade mathematics)

Advanced math testing will occur in early September. **The test is designed to meet the State of Michigan Department of Education Grade Level Content Expectations for Grade 7. Additional information on this can be found at the following website:**

http://www.michigan.gov/mde/0,1607,7-140-28753_33232

Students who demonstrate proficiency on the test, and meet the following criteria are recommended for advancement to the Algebra I class.

Personal Criteria:

- Tracks assignments and due dates without adult assistance
- Produces work that is organized
- Asks for more work and more difficult problems
- Is mature and would work well with older children
- Has consistently scored at the top of his/her previous classes in standardized math tests as well as in class work and tests.

Curricular Criteria:

- Has mastered rational numbers (knows how to add, subtract, multiply and divide fractions, and can convert between percents, decimals, and fractions), including creation and explanation of a drawing to represent a given situation
- Adds, subtracts, multiplies, and divides positive and negative rational numbers fluently
- Can solve proportion problems using methods including unit rate, scaling, finding equivalent fractions, and solving the proportion $a/b=c/d$
- Can solve applied problems involving rates
- Can plot ordered pairs of integers and use ordered pairs of integers to identify points in all four quadrants of the coordinate plane
- Understands the concept of square root and cube root, and estimates using calculators
- Given a directly proportional or linear situation, graphs and interprets the slope and intercept(s) in terms of the original equation; evaluates $y=mx+b$ for specific values of x , and solves applied problems using this information
- Uses variables to describe patterns and solve problems
- Knows that the graph of inversely proportional relationships ($y=k/x$) is not a line, knows the shape that the graph creates, and knows that the graph does not cross the axis
- Can use properties of real numbers, including additive and multiplicative inverses, additive and multiplicative identities, commutativity, associativity, and the distributive property of multiplication over addition
- Can add, subtract, multiply and divide simple algebraic expressions of the first degree, and justify using the above properties of real numbers
- Understands that in similar polygons, corresponding angles are congruent and the ratios of corresponding sides are equal; understands the concept of similar figures and scale factor; solves problems about similar figures and scale drawings
- Can represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and selects appropriate representations to address specific questions
- Can create and represent scatter plots and find the line of best fit
- Can find and interpret the median, quartiles, and interquartile range of a given set of data
- Can convert ratio quantities between different systems of units, such as feet per second to miles per hour
- Understands (has memorized) the formulas for volume and surface area of prisms, spheres, cones, and cylinders, and can use this information in applied problems
- Finds and/or compares the theoretical probability, the experimental probability, and/or the relative frequency of a given event; can apply the Basic Counting Principle