

# Results of the 2001 Statewide Contest

BY JEFF DODD

## Structure of the Contest

The Alabama Statewide Mathematics Contest is a high school mathematics contest conducted in two rounds. The first round consists of three, 50-question, multiple choice, written tests: Algebra II with Trigonometry, Geometry, and Comprehensive, which are administered at eight sites scattered throughout the state. This round is open to all Alabama high schools, and each school may send any number of students to participate; though each student may take only one of the three tests. It is both an individual and team competition; a school's team score for a test is the sum of its four highest individual scores. The second round is a culmination of the team Comprehensive competition in the form of a "ciphering" (Jeopardy-style) tournament, to which only high scoring teams from the first round written Comprehensive test are invited.

Each school competes in one of three divisions. The Division One competition is for public schools, which are large enough to be classified as 6A in athletics, and private schools, which offer at least two years of mathematics beyond both Algebra II with Trigonometry and Geometry. The Division Two competition is for public schools, classified as 5A or 4A in athletics, and private schools, which offer only one year of mathematics beyond both Algebra II with Trigonometry and Geometry. The Division Three competition is for public schools, classified as 3A, 2A, or 1A in athletics, and private schools, offering no mathematics beyond Algebra II with Trigonometry and Geometry.

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## Participation

The first round of the contest took place on Saturday, March 17. This year, a total of 1132 students participated, representing 62 schools. Compared to last year, the number of students participating dropped a bit (from 1180), but the number of participating schools rose a bit (from 58). Participation continues to be well below the peak participation of 2,021 students and 128 schools in 1988. The second round of the contest took place on Saturday, April 14 at Jacksonville State University in Jacksonville. Invited to the second round were 16 teams in Division One, 16 teams in Division Two, and 14 teams in Division Three. Accepting this invitation were 8 teams from Division One, 9 teams from Division Two, and 9 teams from Division Three.

## The Algebra II with Trigonometry Competition

This competition involves only the first round written test. The names of this year's top-scoring teams and individuals are displayed in Table 1.

Evidently, the Algebra II with Trigonometry Test was particularly challenging this year! In the Division One Algebra II with Trigonometry competition, Vestavia Hills claimed first place by scoring 822 out of 1000 possible points. Grissom took second place with a score of 717, and Hoover third place with a score of 702. Comprising the top 25% of the individual scores were 14 students from Vestavia Hills, 13 from Grissom, 7 from Hoover, 2 from Briarwood Christian, 4 from the Alabama School of Fine Arts, and 1 each from Bob Jones and Central.

In the Division Two Algebra II with Trigonometry competition, Muscle Shoals won the team competition with a score of 519, narrowly beating Dallas County, which scored 517. Cullman took third place with a score of 498. Comprising the top 25% of the individual scores were 6 students from Muscle Shoals, 3 from Dallas County, 5 from Oak Mountain, 5 from Homewood, 1 from West Point, 10 from Cullman, 2 from Albertville, 2 from Bradshaw, and 1 from Greenville.

In the Division Three Algebra II with Trigonometry competition, first place honors went to Sylvania for a score of 443. Comprising the top 25% of the individual scores were 9 students from Sylvania, 3 from Calera, 2 from Ashville, 2 from Good Hope, 1 from Hanceville, 2 from Colbert County, 1 from Plainview, 3 from Lauderdale County, and 2 from Vinemont.

Table 1  
Results of 2001 Algebra II with Trigonometry Contest

Division One

1. Catherine L. Dooley, Vestavia	1. Drew B. Newman, Muscle Shoals	1. Dustin W. Whited, Sylvania
2. Anjana S. Madan, Vestavia	2. Eric Champion, Dallas County	2. Casey T. Rogers, Sylvania
3. Sarah A. Salter, Vestavia	3. Austin Taylor, Dallas County	3. Adam C. Niblett, Sylvania
4. Robert W. Jones, Grissom	4. Jeremy T. Gaskins, Oak Mountain	4. Maigen M. Green, Sylvania
5. Pallavi Gupta, Vestavia	5. Todd Dorrough, Homewood	5. Frank S. Orna, Calera

Division Two

**Top Individuals Statewide**

Jeffrey K. Beasley, Austin	Natalie S. Hartman, Greenville	Jennifer L. Nichols, Good Hope
Karthik K. Chivukula, Auburn	Jessica A. Knowles, Handley	
Travis M. Hicks, Central	Michelle McGaha, Albertville	
David N. Mayhew, St. James	Leeann K. Stegall, Brookwood	
Caroline M. Ragheb, St. Paul's Episcopal		

**Other District Leaders (Alphabetical)**

**Top Teams Statewide**

1. Vestavia Hills	1. Muscle Shoals	1. Sylvania
2. Grissom	2. Dallas County	2. Calera
3. Hoover	3. Cullman	3. Colbert County
4. Alabama School of Fine Arts	4. Homewood	4. Good Hope
5. Briarwood Christian	5. Oak Mountain	5. Lauderdale County
6. Clay-Chalkville	6. West Point	6. Ashville

**Other District Leaders (Alphabetical)**

Central	Albertville	
St. James		
St. Paul's Episcopal		

Division Three

**Table 2**  
**Results of 2001 Geometry Contest**

**Division One**

**Division Two**

**Division Three**

**Top Individuals Statewide**

1. Yang Su, Hoover	1. Lance M. Conn, West Point	1. Jared E. Hembree, Vinemont
2. Swati Bansal, Vestavia	2. Julie H. Ellison, Cullman	2. Kevin S. Webb, Sand Rock
3. Risa Kawai, Vestavia	3. Hamilton C. Simpson, Homewood	3. Katie O. McGlawn, Calera
3. Elora Pattanaik, Vestavia	4. Jonathon L. Moreland, Dallas Cty.	4. Dusten R. Horton, Vinemont
5. Aimee E. Casey, Vestavia	5. Chris L. Holby, Homewood	5. Josh D. Helton, Holly Pond

**Other District Leaders (Alphabetical)**

Ashley E. Conn, Auburn	Chad C. Davis, Albertville
Arthur L. Grishkevich, Central	Justin R. Dearborn, Robertsdale
Andin H. Mullis, St. Paul's Episcopal	Sally C. Harris, Winfield City
Sergei S. Sarkisov, Grissom	Claire S. Moore, Handley
Jim Stanfield, Austin	John D. Pritchett, Greenville

**Top Teams Statewide**

1. Vestavia Hills	1. Homewood	1. Vinemont
2. Grissom	2. Cullman	2. Sand Rock
3. Briarwood Christian	3. West Point	3. Holly Pond
4. Alabama School of Fine Arts	4. Muscle Shoals	4. Good Hope
5. Hoover	5. Albertville	5. Lauderdale County
6. Randolph School	6. Dallas County	6. Hanceville

**Other District Leaders (Alphabetical)**

Auburn	Winfield City
St. Paul's Episcopal	

## The Geometry Competition

This competition involves only the first round written test. The names of this year's top-scoring teams and individuals are displayed in Table 2.

In the Division One Geometry competition, Vestavia Hills won first place by scoring 929 out of a possible 1000 points, Grissom second place with a score of 750, and Briarwood Christian third place with a score of 735. (Vestavia's 179 point margin of victory was the largest in any of the nine first round team competitions this year.) Comprising the top 25% of the individual scores were 1 student from Hoover, 19 students from Vestavia, 4 from Grissom, 5 from the Alabama School of Fine Arts, 1 from Randolph School, 7 from Briarwood Christian, and 1 from Sparkman.

In the Division Two Geometry competition, Homewood won first place by outscoring second place Cullman 750 to 737. (These scores would have earned second and third place respectively in Division One.) Third place West Point scored 707, which would have earned fifth place in Division One. Comprising the top 25% of the individual scores were 3 students from West Point, 12 from Cullman, 6 from Homewood, 1 from Dallas County, 4 from Albertville, 1 from Oak Mountain, 4 from Muscle Shoals, and 1 from Coffee.

In the Division Three competition, there were only 11 teams. First place honors went to Vinemont with a score of 441. Comprising the top 25% of the individual scores were 3 from Vinemont, 5 from Sand Rock, 1 from Calera, and 2 from Holly Pond.

## The Comprehensive Competition

The results of the first round written test are displayed in Table 3. (When reviewing the results, bear in mind that there is a different version of the written Comprehensive test for each of the three Divisions.) The results of the second round ciphering tournament, which determined the final team placings in the Comprehensive competition, are displayed in Table 4.

In the first round Division One competition, Vestavia took first place with a score of 910 out of 1000 possible points (completing a sweep of all three of the first round competitions), Grissom took second place with a score of 835, and Central took third place with a score of 785. Comprising the top 25% of the individual scores were 5 students from Central, 11 from Grissom, 2 from Hoover, 25 from Vestavia Hills, and 1 each from John Carroll, Bob Jones, and the Alabama School of Fine Arts.

In the first round Division Two competition, Cullman won the team competition with a score of 719 and Homewood narrowly beat West Point to take second place by a score of 689 to 688. Comprising the top 25% of the individual scores were 8 students from Cullman, 10 from Homewood, 2 from Albertville, 8 from West Point, 4 from Bradshaw, 3 from Oak Mountain, 2 from Muscle Shoals, 1 from Guntersville, 1 from Handley, 1 from Greenville, 2 from Dallas County, and 1 from Robertsedale.

In the first round Division Three competition, there were only 14 teams. First place honors went to Calera, with a score of 690. Comprising the top 25% of the individual scores were 6 students from Calera, 2 from Vinemont, 1 from Belgreen, 2 from Plainview, 1 from Sand Rock, 3 from Lauderdale County, 4 from Good Hope, and 1 each from Hanceville and Holly Pond.

Based on the team scores for the written Comprehensive test, selected schools were invited to the second round ciphering tournament. Seedings for the tournament were also determined from these scores. The format of the tournament (which is described in the Spring 1999 issue of this Journal) is a combinatorial arrangement accommodating up to 16 teams which allows each team to play every other team exactly once in the five rounds, followed by a tie breaker for first place if necessary. So the scoring can be done very much as in a standard round robin tournament.

In the Division One tournament, second-seeded Grissom won all of its matches to take first place. Top-seeded Vestavia took second place, losing only to Grissom. Third place went to fourth-seeded Hoover, whose only losses of the day were very narrow (1-point) losses to Vestavia and Grissom. The fourth place trophy went to third-seeded Central.

In the Division Two tournament, second-seeded Homewood won all of its matches to take first place. Third-seeded West Point took second place, losing only to Homewood and Cullman (both in the final round). Fifth-seeded Muscle Shoals and top-seeded Cullman were tied at the end of the day with three losses each, with Muscle Shoals taking the third place trophy and Cullman the fourth place trophy based on Muscle Shoal's first round win over Cullman.

In the Division Three tournament, top-seeded Calera won all of its matches to take first place. Second place went to fifth-seeded Sand Rock, whose only loss of the day was to Calera (in the first round). Ninth-seeded Hanceville rose to the occasion to take third place, losing only to Calera and Sand Rock (both in the first round). Second-seeded Good Hope took the fourth place trophy, losing only to Calera, Sand Rock, and Hanceville.

Table 3  
Results of 2001 Comprehensive Written Test

Division One

Division Two

Division Three

Top Individuals Statewide	
1. Pradeep R. Baliga, Central	1. Mary Beth Cole, Cullman
2. Laura N. Talianko, Grissom	1. Evan B. Roseman, Homewood
3. Wiechen Zhu, Hoover	3. Christopher J. Thrash, Albertville
4. Brandon C. Ku, Vestavia	3. Joseph D. Barnes, West Point
5. Vaibhav Vohra, Vestavia	5. Jonathan W. Hood, Cullman
	1. Nicholas A. Hicks, Calera
	2. Roger S. Palmer, Calera
	3. Nathan M. Wiegand, Vinemont
	4. Rachel E. Billingham, Belgreen
	5. Derek N. Golden, Plainview

**Other District Leaders (Alphabetical)**

Karen C. Maijala, Austin	Brandi R. Gardner, Dallas County
Gary S. Tsai, Montgomery Academy	Noah C. Godwin, Robertsdale
Chad E. Versiga, Alma Bryant	Carl Nolen, Winfield City
	William B. Phillips, Greenville
	Bradley R. Treadwell, Handley

**Top Teams Statewide**

1. Vestavia Hills	1. Cullman	1. Calera
2. Grissom	2. Homewood	2. Good Hope
3. Central	3. West Point	3. Lauderdale County
4. Hoover	4. Bradshaw	4. Vinemont
5. Bob Jones	5. Oak Mountain	5. Sand Rock
6. Alabama School of Fine Arts	6. Albertville	6. Colbert County
7. Briarwood Christian	7. Muscle Shoals	7. Holly Pond
8. Daphne	8. Dallas County	8. Plainview

**Other District Leaders (Alphabetical)**

Daphne	Robertsdale
	Winfield City

**Table 4**  
**Final Team Placings in 2001 Comprehensive Contest**

<b>DIVISION ONE</b>	<b>DIVISION TWO</b>	<b>DIVISION THREE</b>
1. Grissom	1. Homewood	1. Calera
2. Vestavia Hills	2. West Point	2. Sand Rock
3. Hoover	3. Muscle Shoals	3. Hanceville
4. Central	4. Cullman	4. Good Hope
5. Bob Jones	5. Albertville	5. Vinemont
6. Briarwood Christian	6. Dallas County	6. Lauderdale County
7. Alma Bryant	7. Guntersville	7. Lexington
8. Auburn	8. Beauregard	8. Holly Pond



## Comments

Every school that participated in the contest is to be congratulated on its efforts. We hope that the contest questions will prove interesting and useful to teachers and students long after the contest is over. Our editors are continuing to work on adjusting the level of difficulty of all the tests and the ciphering questions to yield optimal results (plenty of challenges for all, yet an overall level that is not too frustrating for the average participant). Specific comments and suggestions regarding our questions are welcome.

We feel strongly that any motivated student can benefit from participating in the contest, and would like to see more participation, particularly among smaller schools. We remind everyone that a school does not need to field teams for all three tests and there is no minimum number of students required to field a team for any of the three written tests! (For example, a school can send just one student to take just one test!) Of course, a team of fewer than four students will be at a serious disadvantage in team competition. But every student competes on an equal footing with every other student in individual competition. Hundreds of awards (trophies, plaques, and certificates) are given to individuals and teams at the district (i.e., regional) and state levels. These can provide competitive motivation, and (friendly!) cross-town rivalries can provide even more. (Challenge a fellow teacher today!)

## Dates for Next Year

For the 2002 contest, the dates have already been set. The first round written tests will be on Saturday, March 2 and the second round ciphering tournament will be at Jacksonville State University on Saturday, April 20.

## Acknowledgements

Many people worked on the contest this year. We thank everyone who helped; your efforts were valuable and much appreciated. Here we can list only some of those who made special contributions.

Diane Porter of Troy State University prepared the brochures and supervised the printing and distribution of the written tests. Suzanne McGill of the University of South Alabama handled registration. The written tests were constructed by James Dupuy of Birmingham (Algebra II with Trigonometry), Susan P. Slatery of Alabama State University (Geometry), and Laurie Edler of

JSU (Comprehensive). The Algebra II with Trigonometry test was edited by Jeff Dodd, Jason Huffman, and Tom Leathrum, and typeset by Tom Leathrum, all of JSU. The Geometry test was edited by Jeff Dodd, Ed Smith, and Steve White, and typeset by Steve White, all of JSU. The Comprehensive tests were edited by Jimmy Nanney, William Nowell, Pantelimon Stanica, and Robert Underwood and typeset by William Nowell, all of Auburn University at Montgomery. The ciphering problems were written by Scott Brown of Montgomery, AL and Jeff Dodd of JSU, compiled and edited by Jeff Dodd, and typeset by Steve White of JSU, with additional checking and editing by Steve White, Martha Knight, Deborah Primm, Ed Smith, and Laurie Edler of JSU. Steve White and Jeff Dodd of JSU did the scoring and score reporting for the written tests and prepared the certificates. Jeff Dodd of JSU arranged for the trophies. The site contacts for the contest were Oscar Beck of U. of North Alabama, Barbara Rice of Alabama A&M University, Zhi-jian Wu of U. of Alabama Tuscaloosa, Bruce Atkinson of Samford University, Martha Knight of Jacksonville State University, Jimmy Nanney of Auburn University at Montgomery, Suzanne McGill of U. of South Alabama, and Paige Davis of Lurleen B. Wallace State Junior College. Jeff Dodd and the faculty of the Mathematical, Computing and Information Sciences Department of JSU hosted the final round ciphering tournament.

The contest is administered by a joint committee of the Alabama Council of Teachers of Mathematics and the Alabama Association of College Teachers of Mathematics. The committee continues to be in need of assistance from present or former teachers of secondary or post-secondary mathematics. If you would like to help, if you would like to obtain further information of any kind about the contest, or if you have comments or suggestions regarding the contest, please feel free to contact the contest director (the author of this article). You can also look at the contest web site: <http://mcis.jsu.edu/mathcontest>, which contains a wealth of information about the contest.

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