

Results of the 2000 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.

Participation. The first round of the contest took place on Saturday, March 4. This year, a total of 1180 students participated, representing 58 schools. Compared to last year, the number of participating students dropped a bit from 1265, but the number of participating schools was nearly the same. (Last year it was 59.) 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 22 at Jacksonville State University in Jacksonville. Invited to the second round were 16 teams in Division One, 16 teams in Division Two, and 12 teams in Division Three. Accepting this invitation were 7 teams from Division One, 10 teams from Division Two, and 7 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.

In the Division One Algebra II with Trigonometry competition, Vestavia Hills claimed first place by scoring 935 out of a possible 1000 points (the highest team score in all the first round tests this year), Grissom second place with a score of 793, and Hoover third place with a score of 675. Comprising the top 25% of the individual scores were 20 students from Vestavia Hills, 7 from Grissom, 4 from Hoover, 2 from Homewood, and 1 each from The Montgomery Academy, Alma Bryant, Central, Briarwood Christian, and St. Paul's Episcopal. In the Division Two Algebra II with Trigonometry competition, Cullman won the team competition with a score of 729, which would have placed them third in Division One, and Muscle Shoals narrowly outscored Bradshaw 565 to 554 to take second place; either of these scores would have earned fifth place in the Division One Competition. The 164 point margin of victory by Cullman was the largest in any of the nine first round team competitions. Comprising the top 25% of the individual scores were 6 students from Cullman, 4 from Bradshaw, 5 from Muscle Shoals, 3 each from Greenville and West Point, 2 from Dallas County, and 1 each from Albertville and Handley. In the Division Three Algebra II with Trigonometry competition, there were only 12 teams. First place honors went to Hanceville for a score of 440. Comprising the top 25% of the individual scores were 5 students from Hanceville, 6 from Plainview, 3 from Calera, 9 (yes, nine!) from Pisgah, 2 each from Sylvania and Hazlewood, and 1 each from Sand Rock, Holly Pond, Good Hope, and Lauderdale County.

Table 1
Results of 2000 Algebra II with Trigonometry Contest

DIVISION ONE

DIVISION TWO

DIVISION THREE

Top Individuals Statewide

1. Paul Wu, Vestavia	1. Jonathan Hood, Cullman	1. Jonathan L. Brooks, Hanceville
2. Evan T. Metrock, Vestavia	2. Rebekah L. Rogers, Bradshaw	2. Sarah D. Burkart, Hanceville
3. Ben A. Burford, Vestavia	3. Hillary M. Maples, Cullman	3. Adam D. Sibert, Plainview
4. Jennifer L. Phillips, Vestavia	4. Ben M. Miller, Cullman	4. Nicholas A. Hicks, Calera
5. Douglass D. McCarty, Vestavia	5. Ashley R. Hayes, Muscle Shoals	4. Tyler A. Black, Plainview

Other District Leaders (Alphabetical)

Arielle C. Barlow, Austin	Chad C. Davis, Albertville	Jonathan A. Day, Pisgah
Eric A. Mog, Grissom	Brandi R. Gardner, Dallas County	
Joey Neggars, Central	Megan E. May, Handley	
Chad E. Versiga, Alma Bryant	William B. Phillips, Greenville	
Sarah J. Wishnietsky, Montgomery Ac.	Brandon K. Roberts, Sumiton Christ.	
	Tiffany A. Scott, T R Miller	
	Kristy M. Simms, Brookwood	

Top Teams Statewide

1. Vestavia Hills	1. Cullman	1. Hanceville
2. Grissom	2. Muscle Shoals	2. Plainview
3. Hoover	3. Bradshaw	3. Calera
4. Homewood	4. Greenville	4. Pisgah
5. Central	5. West Point	5. Sylvania

Other District Leaders (Alphabetical)

Alma Bryant	Albertville	
St. James	Dallas County	
	Handley	
	Sumiton Christian	

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 911 out of a possible 1000 points, Grissom second place with a score of 798, and Hoover third place with a score of 758. Comprising the top 25% of the individual scores were 15 students from Vestavia, 6 from Grissom, 5 from Hoover, 3 each from Briarwood Christian, Clay-Chalkville, and Homewood, and 1 each from Bob Jones and Jefferson County International. In the Division Two Geometry competition, Cullman won first place by outscoring second place Oak Mountain 798 to 768. (Either of these scores would have earned second place in Division One.) Third place West Point scored 733, which would have earned fourth place in Division One. Comprising the top 25% of the individual scores were 12 students from Cullman, 5 from Oak Mountain, 3 each from West Point, Muscle Shoals, and Dallas County, 2 from Winfield City, and 1

each from Bradshaw and Albertville. In the Division Three competition, there were only 11 teams. First place honors went to Sylvania with a score of 511. Comprising the top 25% of the individual scores were 3 from Sylvania, 4 from Holly Pond, 2 each from Good Hope, Cornerstone Christian, and Lauderdale County, and 1 each from Pisgah, Plainview, Sand Rock, Hazlewood, and Lexington.

**Table 2
Results of 2000 Geometry Contest**

DIVISION ONE

DIVISION TWO

DIVISION THREE

Top Individuals Statewide

1. Catherine L. Dooley, Vestavia	1 Andrew B. Newman, Muscle Shoals	1. Dustin W. Whited, Sylvania
2. Jimmy P. Troup, Vestavia	2. Wes E. Bonds, Cullman	2. C. Adam Niblett, Sylvania
3. Sarah A. Salter, Vestavia	3. Jeremy T. Gaskins, Oak Mountain	3. Amanda M. Black, Good Hope
4. Anjana S. Madan, Vestavia	4. Kelly M. Henry, Oak Mountain	4. Micah R. Whitson, Cornerstone Christ.
5. Richard Cheung, Bob Jones	5. Michael E. Champion, Dallas Cty.	5. Joseph D. Moore, Pisgah

Other District Leaders (Alphabetical)

Jeffrey K. Beasley, Austin	Clay Brasher, Winfield City	
Catherine S. Bell, Central	Shae Hartman, Greenville	
Jin Sunwoo, Auburn	Holly Kitchens, Handley	
Jered P. Zukunft, Fairhope	Justin B. Lambert, T R Miller	
	Ashley N. Upton, Albertville	

Top Teams Statewide

1. Vestavia Hills	1. Cullman	1. Sylvania
2. Grissom	2. Oak Mountain	2. Holly Pond
3. Hoover	3. West Point	3. Good Hope
4. Briarwood Christain	4. Dallas County	4. Cornerstone Christian
5. Clay-Chalkville	5. Winfield City	5. Pisgah

Other District Leaders (Alphabetical)

Auburn	Albertville	
Mars Hill Bible School	Handley	
St. Paul's Episcopal		

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.

The first round Division One competition featured a close battle for the first place team, with Grissom prevailing over Vestavia Hills by scores of 892 to 877 out of a possible 1000 points. Central took third place with a score of 827. Comprising the top 25% of the individual scores were 22 students from Vestavia Hills, 12 from Grissom, 6 from Hoover, 4 from Central, and one each from Bob Jones, Lamp, Austin, and Homewood. In the first round Division Two competition, Cullman won the team competition with a score of 794, Bradshaw took second place with a score of 722, and West Point took third place with

a score of 692. Comprising the top 25% of the individual scores were 8 students from Cullman, 7 from Albertville, 5 from West Point, 4 from Bradshaw, 3 from Muscle Shoals, 2 each from Winfield City and Dallas County, and 1 each from Oak Mountain, Handley, and Guntersville. In the first round Division Three competition, there were only 12 teams. First place honors went to Calera for a score of 604. Comprising the top 25% of the individual scores were 8 students from Calera, 6 from Sand Rock, 5 from Holly Pond, 3 each from Plainview and Good Hope, 2 each from Hanceville, Pisgah, and Lauderdale County, and 1 each from Belgreen, Vinemont, and Lexington.

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 each other team exactly once *in only 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, third-seeded Central won first place by performing with remarkable consistency in each and every round on this year's very challenging ciphering questions. Second place went to Vestavia, whose only loss of the day was to Central in the final round. Third place went to Hoover, whose only losses of the day were to Central and Vestavia in the final round. Top-seeded Grissom took the fourth place trophy after falling to Central, Vestavia Hills, and Hoover in the final round. (What a shootout there was in the final round with these four powerful teams all in one room!) In the Division Two tournament, third-seeded West Point won all of its matches to take first place. Top-seeded Cullman took second place, losing only to West Point. And fourth-seeded Albertville won its final round match with second-seeded Bradshaw to decide the disposition of the third and fourth place trophies. In the Division Three tournament, top-seeded Calera won all of its matches to take first place. Second place went to third-seeded Hanceville, whose only loss of the day was to Calera in the final round. Fifth-seeded Lauderdale County rose to the occasion to take third place. The remaining four teams were tied at the same score at the end of the contest, with Holly Pond taking the fourth place trophy based on the tie-breaking rules.

Comments. Participation in the second round ciphering tournament of the contest was adversely affected by the fact that we were forced to schedule the tournament on Easter weekend; several schools which had planned to take part could not due to family obligations of their students.

For the 2001 contest, the dates have already been set. The first round written tests will be on Saturday, March 17 and the second round ciphering tournament will be at Jacksonville State University on Saturday, April 14. We are planning on giving significantly more awards this year, adding additional team awards to the already numerous team and individual trophies and certificates in order to give even more teams a chance to bring back something to their schools signifying their enthusiasm for and high achievement in mathematics.

Acknowledgments. 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. Slattery of Alabama State University (Geometry), and Dorothy Wendt of Huntsville (Comprehensive). The Algebra II with Trigonometry test was edited by Jeff Dodd, Martha Knight, and Tom Leathrum, and typeset by Tom Leathrum, all of JSU. The Geometry test was edited by Jeff Dodd, Jason Huffman, and Steve White, and typeset by Steve White, all of JSU. The Comprehensive tests were edited by Jimmy Nanney, Pantelimon Stanica, and Robert Underwood and typeset by William Nowell, all of Auburn University at Montgomery. The ciphering problems were written by Jeff Dodd of JSU with assistance from Jason Huffman and Ryann Workman of JSU, and typeset by Jeff Dodd and Steve White of JSU, with

additional checking and editing by Steve White, Jason Huffman, Martha Knight, Deborah Primm, and Ed Smith 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, Lanita Presson of U. of Alabama Huntsville, Rita Reese 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.

Table 3
Results of 2000 Comprehensive Written Test

DIVISION ONE

DIVISION TWO

DIVISION THREE

Top Individuals Statewide

1. Joseph A. King, Central	1. Amanda Michelle Neely, Cullman	1. Joseph A. Dabbs, Calera
2. Pradeep R. Baliga, Central	2. Kevin D. Gray, West Point	2. Brandi N. Brewster, Sand Rock
3. Laura N. Talianko, Grissom	3. Brian D. Bostick, Cullman	3. Roger S. Palmer, Calera
4. Toshihiro Takami, Grissom	4. Chris Thrash, Albertville	4. Chris M. Bearden, Sand Rock
4. Isaac J. Dooley, Vestavia	5. Mary E. Cole, Cullman	5. Amanda E. Strickland, Calera

Other District Leaders (Alphabetical)

David E. Gilliam, Austin	Shakeena P. Bradley, T R Miller	Dustin L. Edwards, Pisgah
Vincent R. Moody, Theodore	Joshua B. Chappelle, Dallas County	Lynn K. Jackson, Hanceville
George A. Nelson, Lamp	Andy S. Lightcap, Oak Mountain	
	Robert L. Stamps, Winfield City	
	Bradley R. Treadwell, Handley	

Top Teams Statewide

1. Grissom	1. Cullman	1. Calera
2. Vestavia Hills	2. Bradshaw	2. Sand Rock
3. Central	3. West Point	3. Holly Pond
4. Hoover	4. Albertville	4. Hanceville
5. Homewood	5. Muscle Shoals	5. Good Hope

Other District Leaders (Alphabetical)

Austin	Dallas County	
Lamp	Handley	
Theodore	Oak Mountain	
	Winfield City	

Table 4
Final Team Placings in Comprehensive Contest

DIVISION ONE	DIVISION TWO	DIVISION THREE
1. Central	1. West Point	1. Calera
2. Vestavia Hills	2. Cullman	2. Hanceville
3. Hoover	3. Albertville	3. Lauderdale County
4. Grissom	4. Bradshaw	4. Holly Pond
5. Briarwood Christian	5. Oak Mountain	5. Good Hope

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 might 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 at its new address: <http://mcis.jsu.edu/mathcontest>, which contains a wealth of information about the contest.

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