

Results of the 1999 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 13. This year, a total of 1265 students participated, representing 59 schools. Compared to last year, the number of participating students dropped significantly (from 1341), and the number of participating schools dropped dramatically (from 79). (Some possible reasons for this decline are discussed below.) 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 17 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 7 teams from Division One, 8 teams from Division Two, and 8 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 908 out of a possible 1000 points, Grissom second place with a score of 750 and Hoover third place with a score of 702. Comprising the top 25% of the individual scores were 16 students from Vestavia Hills, 11 from Hoover, 4 from Grissom, 3 from Homewood, 3 from Central, 2 from the Alabama School of Fine Arts, and 1 each from Briarwood Christian and Shades Valley. In the Division Two Algebra II with Trigonometry competition, Cullman won the team competition with a score of 514, which would have placed them sixth in Division One, and West Point was a close second with a score of 496. Comprising the top 25% of the individual scores were 11 students from Cullman, 9 from West Point, 3 from Dallas County, 3 from Geneva, 2 from Albertville, and 1 each from Handley and Muscle Shoals. In the Division Three Algebra II with Trigonometry competition, there were only 11 teams. First place honors went to Hanceville for a score of 310. Comprising the top 25% of the individual scores were 7 students from Hanceville, 4 from Lexington, 3 from Lauderdale County, 2 each from Holly Pond, Faith Christian, Sandrock, and Colbert County, and 1 each from Cold Springs, Vinemont, Good Hope, and Maplesville.

Table 1
Results of 1999 Algebra II with Trigonometry Contest

DIVISION ONE

DIVISION TWO

DIVISION THREE

Top Individuals Statewide

1. James B. Tidwell, Grissom	1. Mary E. Cole, Cullman	1. Lynn K. Jackson, Hanceville
2. David A. Musgrove, Vestavia Hills	2. Christopher J. Thrash, Albertville	2. Kristy Humaideh, Hanceville
3. Brandon Ku, Vestavia Hills	3. Dusty M. S. Brock, Albertville	3. Sherrie L. Evans, Hanceville
4. Melody Chau, Vestavia Hills	4. Amanda R. Kelsoe, West Point	4. Wesley A. Mosley, Cold Springs
5. Ling T. Yang, Vestavia Hills	4. Crystal M. Mosley, Cullman	4. Mary L. Carr, Holly Pond

Other District Leaders (Alphabetical)

Noah C. Godwin, Robertsdale	Clay A. Brasher, Winfield City	Patricia D. Lovelady, Maplesville
Christopher M. Guin, Central	Jeffrey L. Easterling, Jemison	Clint M. Stamps, Faith Christian
Gary S. Tsai, Montgomery Academy	Charnita D. Peoples, Dallas County	
	Melanie M. Simmons, Geneva	
	Robert H. Wright, Citronelle	
	Wei Panpa Xiao, Handley	

Top Teams Statewide

1. Vestavia Hills	1. Cullman	1. Hanceville
2. Grissom	2. West Point	2. Lauderdale
3. Hoover	3. Albertville	3. Lexington
4. Homewood	4. Dallas County	4. Cold Springs
5. Alabama School of Fine Arts	5. Geneva	5. Holly Pond

Other District Leaders (Alphabetical)

Central	Brookwood	Sand Rock
Robertsdale	Handley	
St. James	Jackson Academy	

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 916 out of a possible 1000 points, Hoover second place with a score of 855, and Grissom third place with a score of 741. Comprising the top 25% of the individual scores were 21 students from Vestavia, 6 from Hoover, 4 from Grissom, 2 from Homewood, and 1 each from Montgomery Academy, Bob Jones, and the Alabama School of Fine Arts. In the Division Two Geometry competition, Cullman won first place by outscoring second place Winfield City 891 to 731, the largest margin of victory in any of the nine first round team competitions. (Their score of 891 would have placed them second in the Division One competition.) Comprising the top 25% of the individual scores were 12 students from Cullman, 8 from Winfield, 4 each from West Point and Muscle Shoals, 2 each from Bradshaw and Albertville, and 1 from Dallas County. In the Division Three competition, there were only 14 teams. First place honors went to Plainview with a score of 486, and Vinemont was a close second with 472. Comprising the top 25% of the individual scores were 5 from Plainview, 4 from Lauderdale County, 3 each from Vinemont and Lexington, 2 from Cold Springs, and 1 each from Calera, Good Hope, Fyffe, Cleburne County Career/Technical, and Colbert County.

Table 2
Results of 1999 Geometry Contest

DIVISION ONE

DIVISION TWO

DIVISION THREE

Top Individuals Statewide

1. Brooks R. Gray, Vestavia Hills	1. Kate M. Hardeman, Cullman	1. Charlie M. Love, Cold Springs
2. Jennifer L. Phillips, Vestavia Hills	2. Hillary M. Maples, Cullman	2. Darla R. Haymon, Plainview
3. Weichen Zhu, Hoover	3. Johnathan W. Hood, Cullman	3. Nathan M. Wiegand, Vinemont
4. Ning Zhou, Hoover	4. Ben M. Miller, Cullman	4. Cassie L. Taylor, Vinemont
5. Eric J. Andrews, Vestavia Hills	5. Robert L. Stamps, Winfield City	5. Roger S. Palmer, Calera
	5. Daniel P. Strandlund, Cullman	

Other District Leaders (Alphabetical)

Diana L. Abernethy, St. Paul's Episcopal	Christy L. Emfinger, Jemison	
Matthew A. Fredrickson, Austin	Brandi R. Gardner, Dallas County	
Jeanne Te Lee, Central	Natalie A. Jennings, Albertville	
Albert Wang, Grissom	Brandon R. Richards, Carroll	
Sarah J. Wishnietsky, Montgomery Academy	William W. Stewart, Citronelle	
	Brad Treadwell, Handley	

Top Teams Statewide

1. Vestavia Hills	1. Cullman	1. Plainview
2. Hoover	2. Winfield City	2. Vinemont
3. Grissom	3. West Point	3. Lexington
4. Homewood	4. Muscle Shoals	4. Cold Springs
5. Alabama School of Fine Arts	5. Albertville	5. Lauderdale County

Other District Leaders (Alphabetical)

Montgomery Academy	Dallas County	
St. Paul's Episcopal	Geneva	
	Handley	
	Jemison	

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 Vestavia Hills prevailing over Grissom by scores of 939 to 921 out of a possible 1000 points. (These scores were the two highest in all the first round tests this year.) Hoover took third place, narrowly beating fourth place Central by a score of 704 to 702. Comprising the top 25% of the individual scores were 30 students from Vestavia Hills, 12 from Grissom, 6 from Hoover, 3 from Central, 2 from Bob Jones, and 1 from the Alabama School of Fine Arts. In the first round Division Two competition, Westpoint won the team competition with a score of 671, and Cullman was a close second with a score of 644. Comprising the top 25% of the individual scores were 14 students from Cullman, 7 from Bradshaw, 6 from West Point, 3 each from Albertville and Muscle Shoals, 2 each from Catholic, Russell County, and Dallas County, and 1 each from Geneva, Coffee, and Jemison. In the

first round Division Three competition, there were only 16 teams. First place honors went to Good Hope, which defeated Sand Rock by the narrowest of margins by a score of 485 to 483. Comprising the top 25% of the individual scores were 4 students each from Sand Rock, Good Hope, Faith Christian, Calera, and Holly Pond, 3 each from Vinemont and Plainview, 2 each from Fyffe, Cherokee, Hanceville, and Belgreen, and 1 each from Lauderdale County, Colbert County, Litchfield, 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. This year, we tried a new (and quite novel) format for the tournament which was a great success. It seems to have addressed the most serious complaints about the old Swiss tournament. The new format (which was more fully 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, top-seeded Vestavia won first place by narrowly defeating second-seeded Grissom in a remarkable tie breaker during which both teams answered every question correctly. Third place was decided by fourth-seeded Central's fifth round victory over third-seeded Hoover. In the Division Two tournament, top-seeded West Point, second-seeded Cullman, and fourth-seeded Albertville were undefeated over the first four rounds. In the fifth round, West Point emerged victorious and Albertville upset Cullman to take second place. Third place went to the third seed Bradshaw. In the Division Three tournament, the top three seeds finished on top and in order. Calera won first place by narrowly defeating Good Hope in a tie breaker which was the antithesis of the Division One tie breaker; Calera gave the one and only correct answer! Third-seeded Faith Christian took third place and remarkably, eighth-seeded Hanceville took the fourth place trophy.

Comments. Participation in the contest was down noticeably this year. This may partly have been due to the fact that (due to some problems beyond our control) the contest brochure was mailed later than usual. Next year, we hope that we will be on time, and we hope that more teachers will take advantage of the contest web site, which has an online version of the brochure as well as other useful information. Also, we have some anecdotal evidence that it is more and more difficult for teachers to field teams due to numerous other events competing for students' weekends in the spring. We do not know what to do about this, and we are willing to consider any suggestions for scheduling the contest differently.

Please help us spread the word that we are working very hard to improve the contest. We are continuing to adjust the Comprehensive written tests to better serve Divisions Two and Three, and for the 20th annual Statewide Contest (First Round March 4, 2000 and Second Round April 15, 2000) we will have corrected and expanded the contest mailing list. Any teacher who did not receive a brochure for the 1999 contest and would like to receive one is urged to contact us with a current mailing address. (An email address helps too.)

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.

Jan Elrod 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 (Algebra II with Trigonometry), Richard Vinson of the University of South Alabama (Geometry), and Dorothy Wendt (Comprehensive). The Algebra II with Trigonometry test was edited by Jeff Dodd, Martha Knight, Tom Leathrum, and Ed Smith, and typeset by Tom Leathrum, all of JSU. The Geometry test was edited by Jeff Dodd, Deborah Primm, Ed Smith, and Steve White, and typeset by Steve White, all of JSU. The Comprehensive tests were edited by Jimmy Nanney, William Nowell, and Robert Underwood and typeset by William Nowell, all of AUM. The ciphering problems were written by Jeff Dodd of JSU, Stephen Curry of the University of Montevallo, Fred Kelley and Ed Smith of JSU, and Mike Howard, and typeset by Jeff Dodd and Steve White of JSU, with additional checking by Steve White, 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, Barbara Rice of Alabama A&M University, Rita Reese of U. of Alabama Tuscaloosa, Kay Tipton of Vestavia Hills High School, Martha Knight and Randy Smith of Jacksonville State University, Jim Kays of AUM, 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 1999 Comprehensive Written Test**

DIVISION ONE

DIVISION TWO

DIVISION THREE

Top Individuals Statewide

1. Abraham B. Kunin, Grissom	1. Kevin D. Gray, West Point	1. Chris M. Bearden, Sand Rock
2. Benjamin J. Cortopassi, Vestavia Hills	2. Mark P. McDonald, Albertville	2. Allen W. Pike, Good Hope
2. Bradley Metrock, Vestavia Hills	3. Amanda Michelle Neely, Cullman	3. Eric S. Roberts, Sand Rock
4. Brian J. Christy, Grissom	4. Eleanor J. Fraser, Bradshaw	4. Ryan Christopher Price, Sand Rock
5. John A. Baldwin, Grissom	5. April R. Kelly, West Point	5. Henri Odink, Fyffe
5. Pradeep R. Baliga, Central		
5. Isaac J. Dooley, Vestavia Hills		

Other District Leaders (Alphabetical)

Adam K. Dyess, Montgomery Academy	Tom W. Boykin, Handley	
David A. Shea, Austin	Lauren M. Colvin, Jackson Academy	
Freddie Yip, St. Paul's Episcopal	David T. Corbett, Winfield City	
	Benjamin C. Mathews, Russell County	
	David Simmons, Geneva	
	Cason S. Willett, Jemison	

Top Teams Statewide

1. Vestavia Hills	1. West Point	1. Good Hope
2. Grissom	2. Cullman	2. Sand Rock
3. Hoover	3. Bradshaw	3. Vinemont
4. Central	4. Albertville	4. Faith Christian
5. Randolph	5. Catholic	5. Calera

Other District Leaders (Alphabetical)

Austin	Dallas County	
St. James	Geneva	
St. Paul's Episcopal	Handley	
	Winfield City	

Table 4
Team Placings in Comprehensive Contest

DIVISION ONE	DIVISION TWO	DIVISION THREE
1. Vestavia	1. West Point	1. Calera
2. Grissom	2. Albertville	2. Good Hope
3. Central	3. Bradshaw	3. Faith Christian
4. Hoover	4. Cullman	4. Hanceville
5. Alabama School of Fine Arts	5. Muscle Shoals	5. Vinemont

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: <http://cs.jsu.edu/mathcontest>

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