### Sixty-Sixth Annual

# STATEWIDE HIGH SCHOOL MATHEMATICS CONTEST

## **TUESDAY, APRIL 2, 2024**



Sponsored by the

TENNESSEE MATHEMATICS TEACHERS' ASSOCIATION

(brochure revised February 20, 2024—change of contact for Freed-Hardeman University)

#### HISTORY AND PURPOSE OF CONTEST

Prior to 1957, several independent (and limited) contests in high school mathematics were held in various localities in Tennessee. The Tennessee Mathematics Teachers' Association effected a merger of these contests in 1957 and began to sponsor a contest open to all public, private, and parochial high schools in Tennessee. This association is happy to conduct a statewide contest each year as one of its major projects.

The major purposes of the contest are (1) to stimulate interest in mathematics by encouraging more students to include mathematics in their programs of study and, thereby, to raise the level of mathematics competence in Tennessee; and (2) to honor those students who are outstanding in their knowledge of mathematics through appropriate public recognition in their schools and their communities.

The contest is conducted as an academic festival where students represent their school in competition with others at a nearby Testing Center. These specially selected school representatives compete with others for preeminence in their region and in the state.

#### **ENROLLMENT OF SCHOOLS**

Each school desiring to enter students in the contest should designate one person (principal or teacher of mathematics) as official Contest Supervisor. This Contest Supervisor shall be responsible for completing the official School Enrollment form and for conducting all necessary correspondence with the Center Chair.

The school enrollment form appears as a separate section of this announcement. It should be filled in completely and mailed to the appropriate Center Chair by **Monday**, **March 18**, **2024**. To be assured of a place in the Contest, the application must be in by this deadline.

Contest Supervisors are urged to submit School Enrollment Forms as soon as possible to permit orderly organization and administration of the contest.

#### **CONTEST ELIGIBILITY**

There are six divisions in the Contest:			
Algebra I / Integrated I Statistics			
Geometry / Integrated II	Pre-calculus		
Algebra II / Integrated III Calculus and Advanced Topics			
A student may compete in only <u>one</u> division.			

The contest is open only to students who have been enrolled in a mathematics course during the current academic year. Each contestant must compete in the division corresponding to the course in which they are enrolled at the time of the exam. Contestants not currently enrolled in a course (due to block scheduling, for example) must compete in the division corresponding to the course in which they were most recently enrolled.

A student may not take the Pre-calculus exam after having taken the Calculus and Advanced Topics exam. The Calculus and Advanced Topics exam may be repeated (unlimited). No other test may be repeated.

Integrated Core I students are eligible to take the Algebra I exam.

Integrated Core II students are eligible to take the Geometry exam.

Integrated Core III students are eligible to take the Algebra II exam.

Junior high and middle school students are eligible to compete if they satisfy the enrollment requirement.

The contest supervisor must contact the local Center Chair prior to registration for rulings on eligibility. Additional details are available at the FAQ page at <a href="https://tmta.wildapricot.org/">https://tmta.wildapricot.org/</a>.

#### **SELECTION OF CONTESTANTS**

The method of selection and preparation of contestants is left to each individual school. Each Contest Supervisor is urged, however, to conduct special examinations for the selection of the contestants who will represent the school at a Testing Center. These exams should be open to all eligible students who wish to compete. This procedure greatly increases the stimulating effects sought as one objective of the Contest.

#### CONTESTANT FEES

A fee of **\$6.00** will be charged for each contestant who competes at a Testing Center. (Note that this is a slight increase from last year.)

#### PAYMENT OF THE ENTRANCE FEES WILL BE DUE THE DAY OF THE CONTEST, TUESDAY, APRIL 2, 2024, AT THE TESTING CENTER.

Please make checks payable to **TMTA**.

Contest Supervisors are requested to seek payment of fees from general school funds. Payment of entrance fees to the Center Chair in advance is encouraged where feasible. **NUMBER OF CONTESTANTS** 

Maximum Number of Contestants Permitted at Testing Centers						
Number Enrolled in Course	Algebra I or Int I	Geometry or Int II	Algebra II or Int III	Statistics	tatistics Pre-calculus	
1-25	4	4	4	4	4	6
26-50	4	4	4	5	5	8
51-75	5	5	5	6	6	9
76-100	5	5	5	7	7	11
101-125	6	6	6	8	8	12
126-150	6	6	6	<b>6</b> 9 9		14
151-175	7	7	7	10	10	15
176-200	7	7	7	11	11	17
201-250	8	8	8	11	11	17
251-300	9	9	9	11	11	17
301-350	10	10	10	11	11	17
351-400	11	11	11	11	11	17
401-450+	12	12	12	11	11	17

#### **TESTING AND GRADING PROCEDURE**

Each school participating in the contest will be assigned by the Regional Chair to a Testing Center where its students will compete. The Contest Supervisor will be notified as to the time and particular room at the Testing Center where each contestant is to report.

#### Schools and/or individuals may compete only at the Testing Center to which assigned.

The Contest will be conducted as one continuous test of 80 minutes.

No contestant may bring any material into the testing room other than a pencil, eraser, compass, ruler, and calculator. Calculators are allowed in all divisions in the contest. Any calculator capable of symbolic manipulation is prohibited. Any calculator allowed on the ACT Math exam is acceptable. Refer to the ACT calculator rules for more details on specific models.

Each test will consist of problems or questions to which five multiple choice answers are given. Each contestant will be allowed to keep their copy of the examination booklet without charge. Additional copies are available for **\$2.00** each while supplies last.

The Chair of each Testing Center will supervise the grading of papers of all students competing at the Center and will forward the Regional Chair the papers of the **top ten contestants** in each division.

The Regional Chair will supervise the re-grading of all papers received from the Testing Centers in the region and will forward to the Examinations Director the papers of the **top ten contestants** in each division from the region.

The Examinations Director will supervise the re-grading of all papers received from the Regional Chairs.

The Contest Committee is the final judge of all grading and awards. Decisions of the Committee are final.

Scoring Formula: Score = 4 × (Number Right) – (Number Wrong) + 40.

**New rule:** If there is a tie for first, second, or third place in a particular exam, then graders will use both answer sheets and work backwards from the last problem to find the first answer which one of them answered correctly and which the other one did not. The person with the correct answer on that problem will be the winner of that place.

#### **TESTING AREAS**

(Contact information is on pages 7-9.)

#### EAST TENNESSEE

**Regional Chair – Kim Nunn,** Northeast State Community College, Blountville, TN Email: <u>kpnunn@northeaststate.edu</u>

#### Host College and Location

#### <u>Chair</u>

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Northeast State Community College, Blountville	Teresa Gardner
Carson-Newman University, Jefferson City	Michael Lugo
Roane State Community College, Harriman	Dani Lane
Roane State Community College, Oak Ridge	Stefanie Holmes
Maryville College, Maryville	Dan Ross
Tennessee Wesleyan University, Athens	David Ashe
University of Tennessee, Chattanooga	Meg Kiessling
Tusculum College, Greeneville	Wei Hu
Pellissippi State Community College (Hardin Valley), Knoxville	Ellen Matheny

#### **MIDDLE TENNESSEE**

**Regional Chair – Sarah Bleiler-Baxter,** Middle Tennessee State University, Murfreesboro Email: <u>Sarah.Bleiler@mtsu.edu</u>

Host College and Location	<u>Chair</u>
Volunteer State Community College, Gallatin	Shelley Fenton
Lipscomb University, Nashville	Amy Nelson
Middle TN State University, Murfreesboro	Dovie Kimmins
The University of Tennessee Southern, Pulaski	Jennifer Aust
Austin Peay State University, Clarksville	Jennifer Yantz
Tennessee Technological University, Cookeville	Stacy Brown
Cumberland University	Laurie Dishman

#### WEST TENNESSEE

**Regional Chair – Bryan Sandor**, University of Tennessee at Martin, Martin, TN Email: <u>bsandor@utm.edu</u>

Host College and Location	<u>Chair</u>
Dyersburg State Community College, Dyersburg	Devalyn Reynolds
Freed-Hardeman University, Henderson	Timberly Singleton
University of Tennessee at Martin, Martin	Robert Niedzialomski
University of Memphis, Memphis	Alistair Windsor
Southwest Tennessee Community College (Macon Cove campus)	, MemphisMark Moses

#### Contest Committee

Statewide Contest Coordinator – Daryl Stephens, East Tennessee State University, Johnson City, TN

Examinations Director - Brian Wagner, University of Tennessee, Martin, TN

#### AWARDS

For superior performances, awards shall be presented as follows:

- 1. Certificates of Participation To be given to each person who takes part in the contest.
- 2. **Certificates of Merit** To be awarded to first, second, and third place winners in each testing center in each division of the contest.
- 3. **Certificates of Distinction** To be awarded to first, second, and third place winners in each region in each division of the contest.
- 4. **Certificates of Achievement** To be awarded to the remainder of the top ten winners in each region in each division of the contest.
- 5. *Engraved Plaques* To be awarded to the first, second, and third place winners in the final state competition in each division of the contest.
- 6. *Certificates of Excellence* To be awarded to the remainder of the top ten winners in the final state competition in each division of the contest.
- 7. *Engraved Plaques* To be awarded to the schools of the first, second, and third place winners in the final state competition in each division of the competition.
- 8. A **\$125.00 check** will be awarded to the first-place winners in the Statistics, Pre-calculus, and Calculus and Advanced Topics Divisions.
- 9. A **\$100.00 check** will be awarded to the first-place winners in the Algebra I / Integrated I, Geometry / Integrated II, and Algebra II / Integrated III Divisions.
- 10. In case of a tie, a final determination of awards will be made by the Contest Committee.

#### **PRESENTATION OF AWARDS**

It shall be the responsibility of each Center Chair to see that the appropriate awards are presented to the winners at their center and to the regional winners from their center. All winners should be recognized on some special occasion at the winner's school such as honors day.

#### CONTEST RESULTS

State Contest results will be published annually in the fall edition of the **TMTA Bulletin** and posted on the TMTA website at <u>https://tmta.wildapricot.org/</u>. Persons desiring to receive these results are encouraged to become a member of TMTA by mailing \$10.00 annual dues to: **Stephanie Kolitsch**, UT Martin, 309 Administration Building, Martin, TN 38238.

2025 TENTATIVE CONTEST DATE Tuesday, April 8, 2025

EAST TENNE:	SSEE REGION		
<b>Teresa Gardner</b>	Michael Lugo		
Northeast State Community College	Carson Newman University		
Mathematics Department	Mathematics		
2425 Highway 75	1646 Russell Avenue		
Blountville, TN 37617	Jefferson City, TN 37760		
(423) 354-2459	(865) 471-3262		
<u>tlgardner@NortheastState.edu</u>	<u>mlugo@cn.edu</u>		
Dani Layne	Stefanie Holmes		
Roane State Community College – Harriman	Roane State Community College – Oak		
Campus	Ridge Campus		
276 Patton Lane	701 Briarcliff Avenue		
Harriman, TN 37748	Oak Ridge, TN 37830		
(865) 354-3000 ext. 4282	(865) 354-3000 ext. 4208		
layned@roanestate.edu	holmessl@roanestate.edu		
David J. Ashe	Wei Hu		
Tennessee Wesleyan University	Tusculum University		
204 East College Street	60 Shiloh Road		
Athens, TN 37303	Greeneville, TN 37745		
(423) 252-1362	(423) 636-7300 Ext. 5144		
dashe@tnwesleyan.edu	whu@tusculum.edu		
Dan Ross Maryville College Mathematics Department 502 E. Lamar Alexander Pkwy. Maryville, TN 37804-5907 (865) 981-8165 dan.ross@maryvillecollege.edu	<i>Ellen Matheny</i> Pellissippi State Community College Mathematics Department 10915 Hardin Valley Road P.O. Box 22990 Knoxville, TN 37933-0990 865-438-7444 <u>ebmatheny@pstcc.edu</u>		
Meg Kiessling University of Tennessee, Chattanooga 304A Lupton Building Dept 6956 615 McCallie Ave Chattanooga, TN 37403 423-425-4545 Meg-Kiessling@utc.edu			

#### MIDDLE TENNESSEE REGION

Amy Nelson Lipscomb University Department of Mathematics One University Park Dr. Nashville, TN 37204 (615) 966-6488 amy.nelson@lipscomb.edu	Jennifer Yantz Austin Peay State University Mathematics AP Box 4626 Clarksville, TN 37044 (931) 221-1607 yantzj@apsu.edu
Jennifer K. Aust The University of Tennessee Southern 433 West Madison Street Pulaski, TN 38478 (931) 363-9851 jaust@utsouthern.edu	Laurie Dishman Cumberland University Mathematics - Labry Hall #236 1 Cumberland Square Lebanon, TN 37087 (615) 547-1278 Idishman@cumberland.edu
Dovie Kimmins Middle Tennessee State University Department of Mathematical Sciences P.O. Box 34 Murfreesboro, TN 37132 (615) 898-2669 Dovie.Kimmins@mtsu.edu Catherine.burnette@mtsu.edu Carmen.bucka@mtsu.edu	Shelley Fenton Volunteer State Community College Math & Science Division Wallace 101F 1480 Nashville Pike Gallatin, TN 37066 (615) 230-3248 Shelley.fenton@volstate.edu
Stacy Brown Tennessee Tech University Department of Mathematics 110 University Drive, BR 217 Box 5054 Cookeville, TN 38505 (931) 372-3441 slbrown@tntech.edu	

WEST TENNE	SSEE REGION	
Devalyn Reynolds Dyersburg State Community College 1510 Lake Road Dyersburg, TN 38024 (731) 286-3254 (731) 286-3299 (Fax) dreynolds@dscc.edu	<b>Timberly Singleton</b> Freed-Hardeman University Brown-Kopel Business Center Room 358 158 East Main Street Henderson, TN 38340 (731) 989-6041 tsingleton@fhu.edu	
Mark Moses Southwest Tennessee Community College 5983 Macon Cv. Memphis, TN 38134 (901) 333-4434 mmoses@southwest.tn.edu	<i>Robert Niedzialomski</i> University of Tennessee, Martin 341 Latimer-Smith Building 203 Hurt Street Martin, TN 38238 (731) 881-7361 <u>miedzia@utm.edu</u>	
<i>Alistair Windsor</i> University of Memphis Department of Mathematical Sciences Dunn Hall 355 Memphis, TN 38152 (901) 678-5008 <u>awindsor@memphis.edu</u>		

#### TENNESSEE MATHEMATICS TEACHERS' ASSOCIATION

2024 High School Mathematics Contest, April 2

*Email this form to the center chair of the testing center you wish to bring students to. Email addresses are in the contest brochure.* 

SCHOOL ENROLLMENT FORM			
School:	City:		
County:	Today's Date:		
Contest Supervisor: School Email Address:			
Are you a member of TMTA? (underline or highlight) Yes No			
NOTE: PLEASE PAY \$6.00 PER CONTESTANT AND MAKE CHECK PAYABLE TO TMTA.			

	Algebra I Integrated I	Geometry Integrated II	Algebra II Integrated III	Statistics	Pre- calculus	Calculus & Adv Topics
Number Enrolled in Course(s)						
Maximum Number of Participants Allowed. (See table below)						
Number to Compete at Testing Center, (Not to Exceed Maximum)						

Maximum Number of Participants Allowed						
Number Enrolled in Course	Algebra I Integrated I	Geometry Integrated II	Algebra II Integrated III	Statistics	Precalculus	Calculus & ADV Topics
1-25	4	4	4	4	4	6
26-50	4	4	4	5	5	8
51-75	5	5	5	6	6	9
76-100	5	5	5	7	7	11
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