

Section 942: MATHEMATICS CONTEST

- (a) **ELIGIBILITY.** In addition to the eligibility requirements for contestants in Subchapter M, only students in grades 9-12 shall be permitted to enter the high school contest.
- (b) **REPRESENTATION.**
 - (1) *Individual Competition.* Each participant high school may enter as many as four individuals in the district meet, all of whom may place. In districts with more than eight schools, district executive committees may elect to limit entries to three.
 - (2) *Team Competition.* The individuals entered at district constitute the team. All four members of the winning team will advance to the next higher level of competition. A team shall have a minimum of three contestants compete in order to participate in the team competition.
- (c) **QUALIFICATION; SUBSTITUTES; ALTERNATES.**
 - (1) *Individual Winners.* First, second and third place district winners in each conference qualify for the regional meet and the top three regional winners for the State Meet according to the schedules in Section 903 of the Spring Meet Plan. If an individual qualifier cannot compete at the next higher meet, the alternate shall be notified and allowed to compete.
 - (2) *Team Winners.* The winning team shall advance to the next higher level of competition. If a member of a school's team is unable to compete at the next higher level of competition, only one substitution may be made. The substitute shall give the contest director a letter certifying eligibility signed by a school administrator. (See Section 903 [b] [4].)
 - (3) *Wild Card.* Each region's highest-scoring second place team may advance to the regional academic meet. In the event of a tie, after the tiebreaker has been applied all teams involved in the tie will advance. In order to be eligible as a wild card representative, district results shall be certified online no later than 5 p.m. on the Monday following the final district academic week. Failure to meet the deadline or to submit correct scores disqualifies the district from advancing teams as wild card representatives. The highest-scoring second place team from the regional meets may advance to the Academic State Meet.
- (d) **NATURE OF THE CONTEST.**
 - (1) *Test Materials.* The tests and answer keys will be provided to the district director by the League office in a sealed envelope which shall not be opened until the pre-contest preparation period. Contest support materials will not be sealed and should be opened and inventoried upon arrival.
 - (2) *Test Questions.* The 40-minute test will consist of 60 objective-type questions designed to test knowledge and understanding in the areas of general math, algebra I and II, geometry, trigonometry, math analysis, analytic geometry, probability, pre-calculus and elementary calculus. Questions will be multiple choice.
- (e) **USE OF CALCULATORS.** Students may use calculators. Contestants will be allowed the use of any commercially available silent hand-held calculators that do not require auxiliary electric power and as long as they are not modified. Each student may bring one spare calculator. Small, hand-held computers are not permitted. Memory should not be cleared.
- (f) **CONDUCTING THE CONTEST.**
 - (1) *Personnel.* A contest director and an assistant shall be appointed by the meet director. The contest director shall be competent, unbiased, and may be a coach, if necessary. The contest director shall appoint and train the other contest personnel.
 - (2) *Contest Room.* The contest room shall be adequate in size and should be selected with quietness of location and excellence of lighting as prime factors. Classroom armchairs or tables with accompanying armless chairs are recommended.

- (3) *Clock and Time Signals.* The time allotted for the mathematics test is 40 minutes. At a position easily seen by all contestants, a clock should be provided to indicate the remaining time in the contest. No time warning shall be given. If all contestants agree to its absence, the clock may be omitted.
- (4) *Pre-contest Review of Test Material.* Approximately 30 minutes before the actual contest begins, the contest director and assistant shall open the test packet to verify that there is an adequate number of tests and that there are no missing or misprinted pages on any test.
- (5) *Assembly and Roll Call.* At the designated contest time, contestants, coaches, graders and other interested individuals should be gathered in the contest room for roll call. Call roll from the contest roster and replace any contestant who is not present with a certified substitute at district and a certified alternate at regional. The contest instructions should be reviewed and questions on the rules should be answered. Announce the time for the verification period and the announcement of results.
- (6) *Reading the Contest Instructions.* The contestants shall be given the following instructions:
 - (A) Clear desks except for two calculators, writing implements, and a timing device (optional). Cell phones, iPods, or other similar devices are not to be used as timers and are not to be visible during the contest. Announce to the contestants that the emission of any audio signals of any kind during the contest will result in disqualification.
 - (B) Indicate your answers using capital letters, in the appropriate blanks provided on the answer sheet. Answers not written as capital letters will be graded as being incorrect.
 - (C) No oral time warnings shall be given; if you wish to see the amount of time remaining in the contest, you may refer to the clock or to your own timing device.
 - (D) If you finish the test before the end of the allotted time, you shall remain in your seat and retain your paper until told to do otherwise. You may use this time to check your answers.
 - (E) Keep your papers closed at all times except when told to do otherwise.
 - (F) If you are in the process of actually writing down an answer on the answer sheet when the signal to stop is given, you may finish writing that answer.
 - (G) You may place as many notations as you desire anywhere on the test paper except on the answer sheet which is reserved for answers only. You may use additional scratch paper provided by the contest director.
 - (H) During the contest proper, no questions may be asked or answered.
 - (I) You will be allowed the use of calculators on this test. A spare calculator is permitted but shall be placed on the work area before the contest begins.
 - (J) Transferring information concerning this test to other contestants or coaches shall be ruled a violation of the Spring Meet Code and subject to penalties listed in Sections 27 and 29.
- (7) *Clearing the Room.* When the contest is about to begin, all individuals except the contestants, the contest director and one assistant shall be dismissed from the contest room and kept outside of the room throughout the contest. Other individuals may be stationed outside the contest room to discourage noise.
- (8) *Numbering the Contestants.* A contest roster listing contestants will be created from schools' online entries. The contest director shall number the test papers on the outside and keep notes on the contest roster of the name of each contestant to correspond to the numbers respectively assigned so that at the close of the contest, the papers can be readily identified.
- (9) *Scratch Paper.* Clean scratch paper shall be provided by the contest director for all contestants.

- (10) *Distribution of Papers.* The contest director should distribute the test papers by calling the contestant's name from the mathematics contest roster, giving that contestant the test and answer sheet with the corresponding number. After all test materials have been distributed, indicate that the contest is about to begin and answer no additional questions.
- (11) *Start and Stop Signals.* The signal starting the contest should be given in a manner that is clear and understood by all contestants. Exactly 40 minutes after the start signal was given, announce that time has expired and that contestants shall put their writing implement down and sit back while the tests are collected individually by the person(s) designated to collect the test papers. If contestants are in the process of writing down an answer, they may finish; they may not do additional work on a test question.
- (12) *Grading the Contest.* Adequate time for careful, accurate grading shall be taken. Accuracy shall not be sacrificed for speed. The contest packet will include grading instructions and answer keys. The grading of all papers and the determination of the net scores shall be double checked to reduce the possibility of errors.
- (A) *Grading Room.* Grading shall take place in a room designated by the mathematics contest director. Contestants and coaches not assisting as graders are not allowed in the grading room.
- (B) *Grading Personnel.* Graders appointed by the contest director should be asked to report to the grading room as soon as the contest begins. A head grader, also appointed by the contest director, shall transport the answer keys and surplus tests to the grading room when the contest has started. The head grader shall also supervise the checking of the answer key and oversee the grading of the papers until the contest director can get to the grading room.
- (C) *Problems on the Test.* Problems should not be altered in any way or discarded without a ruling from the UIL State Office and/or the respective state contest director.
- (D) *Answer Key Errors.* In the case of an error on the answer key of an objectively-scored contest, graders should notify the UIL State Office of the nature of the error and/or contact the respective state contest director to seek clarification. Mistakes in the answer key should be corrected, and papers should be judged on correctness rather than on an incorrect answer given in the key.
- (E) *Scoring.* Six points shall be awarded for all questions answered correctly, no points shall be given or subtracted for unanswered questions, and two points shall be deducted for an incorrect answer.
- (13) *Places.*
- (A) *Individual Competition.* First place goes to the contestant making the highest score; second place to the contestant making the next highest score; third place to the contestant making the next highest, and so on.
- (B) *Team Competition.* After the individual mathematics contest winners and alternates have been determined, all papers should be separated according to participating schools. The sum of the three highest scores from each school will determine the team score for that school. The team with the highest total will be declared the winner and all four members of the team will advance to the next higher level of competition. The team with the second highest total will be declared the alternate team.
- (14) *Ties.*
- (A) *Individual Competition.* In the event of a tie, the formula for percent accuracy shall be used to break the tie. The formula is: percent accuracy = number of problems correct \div by number of problems attempted. The contestant with the highest

percent accuracy shall be awarded the higher place. If the percent accuracy scores are the same, then a tie exists. Should there be a tie for first place, there is no second place. Should there be a tie for second place, there is no third. In determining all places, if more than one contestant has the same raw score, the same tie breaking procedure used for first and second place shall be used.

- (B) *Team Competition*. In case two or more teams tie for first or second place, the highest overall net score of the fourth place member of the team will be used to break the tie. Should two or more contestants who are the fourth place member of their team have the same overall net score, then a tie will be declared and all involved in the tie shall advance. A team that does not contain a fourth member forfeits the right to participate in the tiebreaker. In the event of a team tie, the team score to be reported is the sum of the top three scores from each school. At the state meet a tie or ties for first place overall team shall not be broken. Team members also qualify to compete for individual awards.
 - (C) *Wild Card*. In case two or more teams tie for the wild card berth, the highest overall net score of the fourth place member of the team will be used to break the tie. Should two or more contestants who are the fourth place member of the team have the same overall net score, then a tie will be declared, and all involved in the tie shall advance. A team that does not contain a fourth member forfeits the right to participate in the tie breaker. If neither team has a fourth member, neither shall advance.
- (15) *Verification Period*. Prior to the announcement of the official results, the contestants and coaches should be permitted to examine the contestant's answer sheet with a copy of the test and answer key for no more than 15 minutes. During this period, they should verify that it is the correct paper, and look for possible errors in the grading or the recording of scores. Questions should be resolved at this time. The contest director should collect all tests, answer sheets and keys so that none are taken from the verification room or remain with the contestant or coach. Coaches or contestants not present for the verification period forfeit their opportunity to raise questions. If it is evident that an error has been made in tabulation, only the contest director is authorized to correct the error.
 - (16) *Official Results*. The contest director should announce the name, school and score of the first through sixth place individuals and the team members, school and cumulative score of the first place and alternate teams. Official results, once announced, are final.
 - (17) *Returning Papers*. If results are final and all test questions resolved, entries may be returned no sooner than the end of the contest on the Saturday of the respective district week. See the *Spring Meet Handbook* for procedures for returning district meet test papers to schools. Provided there are no unresolved questions concerning any of the papers and provided the meet is held on Saturday, the regional directors may return the respective papers to the contestants the day of the meet following the verification period and announcement of official results.
 - (18) *Points*. Points are awarded through sixth place in the individual competition and to first and second place teams according to Section 902.