

Section 1450: NUMBER SENSE

(a) REPRESENTATION.

- (1) *Contestants.* Students in the fourth, fifth, sixth, seventh and eighth grades who are eligible under Sections 1400 and 1405 may enter this contest.
- (2) *Divisions.* This contest will consist of two divisions, one for students in grades 4, 5 and 6 and one for students in grades 7 and 8, unless the district executive committee approves separate divisions for each grade.
- (3) *Individual Competition.* For each division, each participant school may enter as many as three contestants in the district meet.
- (4) *Team Competition.* If the district has elected to include team competition, the combined scores of the three contestants in each division from a school shall constitute the school's team score. A team must have three contestants compete to participate in the team competition.

(b) NATURE OF THE CONTEST.

- (1) *Summary.* Individuals are called upon every day to use their ability to make quick mental calculations to make decisions. The development of such abilities should be an integral part of the math curriculum. Concepts covered include, but are not limited to: addition, subtraction, multiplication, division, proportions, and use of mathematic notation.
- (2) *Contest Format.* Students will be given a 10-minute, fill-in-the-blank test which they must complete without doing calculations on paper or on a calculator. Erasures, mark-overs and mark-outs are not permitted.
- (3) *Test.* The test will cover basic arithmetic and mathematical functions in grades four through six. Another test for the junior high level will include algebra, geometry and number theory.

(c) CONTEST ADMINISTRATION.

- (1) *Personnel.* All personnel in this contest may be coaches of participating students.
  - (A) *Contest Director.* The contest director will be in charge of running the contest and resolving any problems that arise. The director may appoint an assistant director.
  - (B) *Graders.* At least three graders should be familiar with the instructions for grading and the contest rules. The contest director may recruit more than three graders.
- (2) *Time Allotted for Contest.* Ten minutes are allowed for the contest.
- (3) *Materials.*
  - (A) *Provided by UIL.* The following materials will be provided to schools submitting the appropriate requisitions. See Section 1408 (c) for the dates when invitational materials will be available. See Section 1408 (e) for the dates when district materials will be available.
    - (i) Printed tests for 30 contestants in each packet.
    - (ii) Five copies of the answer key.
    - (iii) Two contest rosters.
  - (B) *Provided by the School or Student.* Pencils or pens.
  - (C) *Other.* No other materials or notes may be used in the contest.

(d) CONDUCTING THE CONTEST.

- (1) *Number Contestants.* The contest director shall number the folded sheets and keep notes of the name and school of each contestant.
- (2) *Clear Room.* Contestants and coaches should be informed of the time and place of the verification period. Spectators and coaches not assigned a specific duty in administering the contest should be dismissed from the contest room before the contest begins.
- (3) *Distribute Tests.* Place the folded test sheets on the writing surface in front of each contestant. Instruct contestants not to handle or unfold the test sheets until the signal is given for the contest to begin.

Instruct contestants to write their answers in the blank immediately following the problem without attempting to solve the problem on paper, in accordance with instructions on the test sheet. This is a test in mental mathematics, and only the results of calculations arrived at without the use of pencil and paper should be accepted. The director of the contest should disqualify a contestant for violating these instructions.

- (4) *Signal to Stop.* After exactly 10 minutes, give the stop signal. Instruct contestants to rise and fold the test sheet and be ready to deliver it to the person designated to collect the sheets.
  - (5) *Collect Tests.* Collect all tests immediately.
- (e) GRADING.
- (1) *Briefing Graders.* Brief graders on procedure to be used for grading and explain the scoring process.
  - (2) *Scoring.* Each test should be independently scored twice, and papers contending to place should be scored a third or fourth time as needed. Award five points for each problem solved correctly. Deduct four points for each problem not solved correctly and for each problem skipped. No deduction is taken for problems after the last problem attempted. An illegible figure constitutes an incorrect answer. The contest director, with the assistance of graders, may determine whether a figure is legible.
    - (A) *Fractions.* All fractions in test papers must be reduced to lowest terms. Improper fractions are permitted. Decimal answers are permitted for those unstarred problems whose answers are exactly expressible as decimals. For example,  $\frac{3}{2}$ ,  $1\frac{1}{2}$ , and 1.5 are all acceptable. Starred problems on the test sheets require approximate integral answers, i.e., they permit 5% error; unstarred problems require exact answers.
    - (B) *Symbols.* Symbols such as ° and % are usually printed on the sheet. Therefore, answers require only the writing of numerals. If a symbol is omitted from the printed sheet, it is not the responsibility of the contestant to make sure the answer is complete. If not printed, the student need not include it in the answer.
    - (C) *Exception for Dollars and Cents.* In agreement with the philosophy that answers should be complete, all dollars and cents problems must have complete answers. That is, twenty-three dollars must be written as \$23.00 (with \$ and .00). Sixteen cents must be written as \$.16 or 16¢, depending on the answer blank format.
    - (D) *Efficient Forms.* Numerical answers should be written so that the answers are complete as in the two examples above. However, the answer should be written in the most efficient form possible. For example, if the answer is 16, the written answer 16.000 is not acceptable for the purposes of the number sense competition. Extraneous zeroes are not to be used. For example, if .16 is the answer, 0.16 is not an acceptable format.
    - (E) *Exponentials.* An answer such as  $3 \times 10^3$  should be expressed as 3000 and not left in exponential form.
  - (3) *Ties.* Ties are not to be broken in either individual or team competition. If there is a tie for first place, there is no second place. If there is a tie for second place, there is no third place, etc.
  - (4) *Points.* Individual points are awarded through sixth place. Team points are awarded through third place. See Section 1408 (i). Tied individuals or teams split the total points equally for the two or more places in which a tie exists.
- (f) VERIFICATION PERIOD. Contestants and coaches shall be given a period not to exceed 15 minutes to examine their test papers with official keys. Unofficial results should be posted. Questions should be directed to the contest director, whose decision will be final.
- (g) OFFICIAL RESULTS. After the verification period has ended and all test papers have been collected, the contest director shall announce the official results. Official results, once announced, are final.

- (h) **RETURNING MATERIALS.** No materials from the fall/winter district contest may be returned to contestants before January 31. No materials from the spring district contest may be returned to contestants before May 15.