

DIVISION 1 COMPREHENSIVE EXAMINATION

1999

ALABAMA STATE-WIDE MATHEMATICS CONTEST

Construction of this test directed

by

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INSTRUCTIONS

This test consists of 50 multiple choice questions. For each question, choose the best of the five answer choices labeled A, B, C, D, and E.

The test will be scored as follows: 5 points for each correct answer, 1 point for each question left unanswered, and 0 points for each wrong answer. (Thus a "perfect paper" with all questions answered correctly earns a score of 250, a blank paper earns a score of 50, and a paper with all questions answered incorrectly earns a score of 0.) Random guessing will not, on average, either increase or decrease your score. However, if you can eliminate one or more of the answer choices as wrong, then it is to your advantage to guess among the remaining choices.

The questions have not necessarily been arranged in order of difficulty.

All variables and constants represent real numbers, except when a particular problem indicates otherwise.

We use the following geometric notation:

If A and B are points, then:

\overline{AB} is the segment between A and B

\overleftrightarrow{AB} is the line containing A and B

\overrightarrow{AB} is the ray from A through B

AB is the distance between A and B

If A is an angle, then:

$m\angle A$ is the measure of angle A in degrees

If A and B are points on a circle, then:

\widehat{AB} is the arc between A and B

$m\widehat{AB}$ is the measure of \widehat{AB} in degrees

Diagrams are not necessarily to scale.

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