

2006 Alabama Statewide Mathematics Contest - A Review of the Geometry Exam

DR. SCOTT H. BROWN

The annual Alabama Statewide Mathematics Contest was directed for the second time by the Mathematics Department of the University of Alabama at Tuscaloosa. The first round was conducted in February 2006, consisting of three, 50-question, multiple-choice tests in Algebra II with Trigonometry, Geometry, and Comprehensive Mathematics. These tests were administered at eight sites located throughout Alabama. A total of 41 teams and 266 students from three divisions competed in the Geometry portion of the contest. Both team and individual scores were determined, with team scores being based on the sum of the highest individual scores. The intent of this article is to present the results of the Geometry test.

The objective of the Geometry test was to evaluate the student's ability to perform at three levels. The first level was composed of computational problems, which involved finding segment length, perimeter, area, and angle measures. Students had to understand fundamental geometric concepts to solve these problems. The second level consisted of application problems, which included finding edge length, surface area, and volume. An intermediate background in geometric properties of three-dimensional objects was necessary to solve these problems. Finally, the highest level was comprised of relatively difficult problems requiring students to think creatively and using more advanced problem-solving strategies.

According to the team scores in the Division I category, the winner scored 890 points, with a commanding 224 point margin of victory. There was a 101 point difference between the second

and third place teams. The individual competition was close, with the winner having a score of 240 points - a seven-point margin over the runner up. The top ten students scored 178 points and above. In the Division II category, the first place team scored 514 points, with a close eight-point margin of victory over the second place team. The individual competition resulted in a tie for first place with scores of 144 points, which was eight points higher than the third place finisher. In the Division III category, the winning team scored 464 points, with a 125 point margin of victory. The individual competition was close among the top two performers with the winner scoring 124 points followed by the second place finisher scoring 120 points. As a whole, both teams and individuals displayed exceptional problem solving talent.

The results of the Geometry test are a good indication that our students are receiving a solid foundation in this area of mathematics in our schools. Our deepest appreciation is extended to the coaches and mathematics teachers for their time in preparing the students for the competition. We would also like to give special thanks to the course director and his staff for their tremendous contributions to making this competition an invaluable part of the Alabama's Mathematics Education program.

Department of Mathematics
Auburn University Montgomery
Montgomery, AL 36124
sbrown7@mail.aum.edu