

2022 Alabama Statewide High School Mathematics Contest

Ciphering Round Rules

Contest Format

- The contest will consist of four rounds, each with five pairs of questions: two geometry, two algebra II and trig, two comprehensive, two more comprehensive and two team questions. Each question has a two minute time limit.
- Each round must have four different students compete and each student must answer both questions in the category in which they are participating. For example, you cannot have one student answer the second of the geometry questions and then stay to answer the first of the algebra II and trig questions.
- Schools may swap out participating students in between rounds.
- If your school has only three students capable of competing, then the school will choose a category in which they will not participate and they will receive zero points for that pair of questions. If only two students are capable of competing, then the school will choose two categories in which they will not participate, etc.
- The four students which competed in that round work together on the pair of team questions. The team will provide only one answer for the team.

Scoring

- For each question, when a student has decided on an answer, they are to write it in the provided area on the answer sheet and hold it up. Spotters around the room will collect the answer sheets and keep track of the time period in which they are received.
- The scoring shall be as follows, based on when during the 2-minute time interval the answer is given:
 - 10 Points for a correct answer from 0:00 - 0:30
 - 8 Points for a correct answer from 0:31 - 1:00
 - 6 Points for a correct answer from 1:01 - 1:30
 - 4 Points for a correct answer from 1:31 - 2:00

If the first person to provide an answer to a question is correct, they will receive two bonus points, in addition to the above points.

- In the event the spotter or moderator determine that two (or more) hands went up first simultaneously, and both answers are correct, the two students will both receive the bonus.

Tiebreaker

- If two (or more) teams are tied at the end of the fourth round, we will resolve the tie with a team-style tiebreaker question. Each school may select four students to participate. The order of the correct answers will determine the final standings. Should two or more teams fail to provide a correct answer, we will continue with tiebreaker questions until a winner is found.

Question Protests

- In the event of an incorrect answer listed to a question, a protest can be made. Protests must be made before the end of the round and must come from a sponsor, not a student. The moderator of the room will alert the contest directors to the protest.
- If the protest is upheld, either the question will be rescored using the correct answer, or in the event of a question which does not have a correct answer, the question will be replaced with an alternate question from the same category.
- All decisions made by the contest directors are final.

Answer Formats. The following are the rules listed at the beginning of the first round regarding correct formats of answers. As an overarching rule, answers must be simplified as much as possible.

- Answers must be in answer box provided to be counted. Units such as cm, in, etc. are **not** necessary.
- Fractions must be reduced. Improper fractions are acceptable. Equivalent decimal representations are also acceptable.
- The numbers π and e must be left as such.
- Complex numbers must be put into $a + bi$ form.
- Answers with radicals must be simplified. Denominators must be rationalized.
- Exponents must be positive.
- Answers involving trigonometric functions must be simplified as much as possible.
- $\log(x)$ means $\log_{10}(x)$ and $\ln(x)$ means $\log_e(x)$.

Covid. As we have learned over the past two years, the situation at any given time with the coronavirus is very fluid. As I write this, the numbers have steeply declined nationwide in general, as well as in Alabama specifically, and currently masks will not be required. However, should the numbers in our area begin to increase as we get closer to the tournament, we reserve the right to require all participants and adult chaperons attending to wear masks. A decision about this will be announced by the end of the day on April 7. Masks will be provided, if necessary, to anyone who did not bring one. Anyone who refuses will be barred from participation and must leave the competition area.

If anyone in your party has any symptoms of a cold or allergies, we ask that they wear a mask out of respect for their other competitors, regardless of whether we put a requirement into place.