## NOVA Annual Mathematics Competition Rules

1. This competition is a team competition. Members of the team will work together to solve mathematics problems. Each team must consist of exactly two participants, both of whom must be present on the day of the competition.
2. Participants must be currently enrolled in courses at Northern Virginia Community College. All students in the competition must be enrolled in, or have passed pre-calculus or a higher-level math course. Participants will need to bring a NOVA student ID card to the competition.
3. The competition will consist of two rounds. Each round will be 30 minutes in length and consist of 10 problems from the topics of functions, logic, counting and probability, and geometry.
4. Participants are permitted to bring their own calculators. The TI-83 and TI-84 calculators may be used in the competition. Any other calculator must be approved on the morning of the competition. Calculators with symbolic computational abilities, such as the TI-89, will not be approved. Contestants will be provided a four-function calculator if they do not bring their own.
5. Participants will work as teams to produce one solution per problem. Each team will submit one answer only to each problem. There will be no partial credit given for shown work. Answers must be submitted immediately upon the completion of each problem in a round. The maximum time allowed to solve 10 problems will be 30 minutes. Answers will be scored in the following way:

- 3 points added for each correct submission
- 1 point deducted for each incorrect submission
- 0 points added for any problem without a problem submission

Additionally there will be a bonus for any team that submits 10 correct responses in any round. Upon submission of the $10^{\text {th }}$ correct response, the remaining time in the round will be recorded, rounded down to the next whole minute. The number of remaining whole minute will be added to the team score as a bonus.
6. Teams will submit solutions to a competition volunteer on the designated answer sheet. Volunteers will be stationed around the competition area. Each volunteer will record the time the solution was submitted before submitting the problem to the graders. Participants will not submit solutions directly to the graders, but to the volunteer.
7. First, second, and third place will be awarded to the teams with the largest totals of points after the two rounds.
8. A tie breaker will be held in the event that the total points for the top three scores are not distinct. A tie breaker question will be administered to only those teams involved in the tie. Upon the first submission of a response from any team participating in the tiebreaker, the tiebreaker round will end. If the submission is correct, then the responding team finishes atop all other tiebreaking participants in the standings. If the submission is incorrect then the responding team finishes below all other tiebreaking participants in the standings. Additional tiebreaking rounds will be completed until all of the top three positions are determined. Tie breaking rounds will each have a 10 -minute time limit.

