

**FLORIDA EDUCATION FUND
MATHEMATICS BRAIN BOWL RULES**
(Revised August 2017)

MISSION

The Florida Education Fund's (FEF) Mathematics Competition seeks to increase interest in mathematics and to develop problem solving ability through a series of challenging mathematics contests for students.

Each Center of Excellence will create a math team to correspond with each level of competition. The FEF will develop all rules and regulations pertaining to the competition and facilitate competition preparation.

A. GENERAL

1. Teams will consist of five (5) players:
 - For the 6th-8th Grade Competition, no more than (3) players will have taken or begun to take Algebra I, Geometry, or any higher-level mathematics course prior to the 2018 State Competition.
 - For the 9th-10th Grade Competition, no more than (3) players will have taken or begun to take Pre-Calculus, any AP mathematics course, or any higher-level mathematics course prior to the 2018 State Competition.
 - For the 11th-12th Grade Competition, no more than (3) players will have taken or begun to take any AP, dual enrolment or higher-level mathematics course prior to the 2018 State Competition or be enrolled in any International Baccalaureate (IB) or Cambridge program.

Four (4) members must compete at a time. The fifth member will be used as the alternate/runner. However, no member may serve as the alternate/runner for two (2) consecutive matches. As the runner, the alternate will be responsible for giving the team's answer sheet to the scorer and is not to participate in the problem solving process. The alternate may replace team members if illness or other emergencies arise prior to or during competition. Once a team has competed, new members may not be added at any level of competition.

2. Prior to competition, each team will designate a captain and a co-captain. The captain will introduce the members of the team, the coach, and the sponsors before competition begins. Once a match has begun, only the captain may question the proctor regarding scores, sequence and general information.
3. There will be a proctor, two timekeepers, a scorer, a scorekeeper and an ombudsman utilized at every level of competition. During competition, the team's alternate will serve as the runner.
4. During competition, at no time may a team member other than the runner, a coach, a sponsor or a member of the audience approach the scorer and scorekeepers' table.

5. Teams competing at the State Competition in March 2018, must submit pre-test scores to the Florida Education Fund in November 2017 and post-test scores in February 2018.
6. DURING COMPETITION, ALL PARTICIPANTS ARE RESPONSIBLE FOR THESE RULES AS WRITTEN. Any participant who violates any Competition rule may be barred from participating in the Competition during the remainder of the current Competition year or in subsequent years, at the discretion of the FEF.
7. No recording, written, audio or visual, will be permitted by the audience or teams not competing in the rooms where Competitions are being held.
8. Regardless of placement in the State Competition, each team must attend the entire State Competition and the entire NAS Pre-College Summit and Brain Bowl Awards ceremony in March 2018. If a team fails to attend, the team will be assessed a \$50 per student and \$100 per coach fine, unless the team's absence has been pre-approved in the event of an emergency. To obtain such approval prior to the end of the Competition, the coach must submit an Early Release Request Form to the proctor, whose decision regarding the Request will be final. To obtain approval once the Competition has concluded, the coach must submit an Early Release Request Form to an FEF officer, whose decision regarding the Request will be final.

B. QUESTIONS AND COMPETITION

1. The Math Competition will be played at the state level in March 2018.
2. Rounds to be played will minimally include quarter-final (if at least five (5) teams are competing), semi-final (if at least three (3) teams are competing, and final (if at least two (2) teams are competing).
3. To determine the order of play during rounds prior to the semi-final round, the team coaches will draw numbers. All such rounds will be played in single elimination format if more than seven (7) teams are competing or in double elimination format if seven (7) teams or fewer are competing.
4. The semi-final round will be played with the winning teams from the quarter-final round. The winners of the semi-final round will advance to the finals. The final round will determine the champion as well as the second place winning team. Both the semi-final and final rounds will be played in the double elimination format.
5. Teams will be seated at round tables for solving questions. When a question is being read, team members must sit at the tables with their hands to their sides. Team members will begin problem solving after the proctor says, "Go."
6. The alternate is not to have a calculator in his/her possession during the problem solving process. If, during competition, a team's alternate is found with a calculator, the team will be penalized 4 points.
7. During all rounds, each match will consist of the same number of problem questions for each team to solve, up to ten (10) problem questions per match (Match Questions).

8. During the quarter-final and semi-final rounds, teams will be given up to two minutes to compute and solve each problem. If a team gets an answer correct, the problem is scored based on the minute/point value. If the answer is incorrect, no points are awarded. The correct answer includes the calculation and the answer. Points will be awarded based on the time required to calculate and record the answer to the problem, as follows:

16 points	Answer within .5 minute (30 seconds)
12 points	Answer within 1 minute
8 points	Answer within 1.5 minutes
4 points	Answer within 2 minutes

During the final round, based on the level of difficulty, teams will be allotted different times to solve problems with the correct answers. If a team gets an answer correct, the problem is scored based on the level/point value. If the answer is incorrect, no points are awarded. The correct answer includes the calculation and the answer. Based on the level of the question, points will be awarded as follows:

Time:

Level One Questions – .5 minute (30 seconds)

Level Two Questions – 1 minute

Level Three Questions – 1.5 minutes

Points:

Level One – 2 points

Level Two – 4 points

Level Three – 8 points

9. During the quarter-final, semi-final and final rounds, if a two-point advantage is not established in a match after teams have had the opportunity to answer the Match Questions, there will be a sudden death playoff. When the proctor declares sudden death, teams may substitute alternates. In sudden death, a problem will be given and the team with the first correct answer wins. The correct answer includes the calculation and the answer. In the event no team has the correct answer, a different question will be given and a new sudden death playoff round will begin.

C. GRIEVANCE PROCEDURES

At the state level of competition, any protest must be submitted to the match's proctor immediately. The protest may be one of two types: (1) a claim that a rule violation occurred during the match or (2) a claim that a proctor misinterpreted a rule that would change the outcome of a match. The protest must be submitted by the team captain or coach and must specify which question or rule is being violated. A protest may be initiated by the team's captain orally or by the team's coach in writing on the protest form. If the team does not protest, the team forfeits the right to protest and the match outcome will remain unchanged.

A coach initiates a protest by holding up the protest form or folder. Once the ombudsman sees the raised protest form or folder, s/he informs the proctor of a protest, and the clock will stop immediately.

The proctor will review the protest. If the proctor rules that the protest is valid and it changes the outcome of the match, then the revised outcome will be considered the official outcome. The proctor will be allocated five (5) minutes to make a decision regarding written protests, and oral protest decisions will be made immediately.

Should the proctor determine that the official outcome is revised by the protest, then the team not submitting the original protest will have (2) minutes from the time of the proctor's decision to file a counter-protest. The proctor will review the counter-protest and make a final ruling, which cannot be protested.

All protests filed must be adjudicated before the Competition can proceed. If the proctor fails to adjudicate a protest, the FEF President or Vice President will make a decision regarding the protest, which decision will be final and cannot be protested.

A team filing a protest or counter-protest not considered valid may be assessed a five-point penalty at the discretion of the proctor. For a second or third invalid protest or counter-protest by the same team, the sponsoring Center of Excellence will be assessed a \$100.00 fine by the FEF.

Once the final round has concluded and the proctor announces the official outcome of the Competition, that official outcome is final and cannot be protested. After that point, any participant who would like to express a concern about the Competition must send that concern to the Director of his/her local Center of Excellence who will forward the information to the FEF's Vice President. The FEF's Vice President will ensure that all such concerns are reviewed and considered by the official Math Competition Committee.

D. SUGGESTED PLANNING STRATEGIES

Practice Materials to be used:

- 6th-8th Grade Competition:
Forward Mathematics; Mathematics Florida Standards Curriculum, Grade 8, by Carol Martin, Everglades Publishing

Make sure all five domains are covered equally (the number system, expressions and equations, functions, geometry, statistics and probability).

- 9th-10th Grade Competition:
PSAT/NMSQT Prep 2018: 2 Practice Tests + Proven Strategies + Online (Kaplan Test Prep)

Make sure all four problem categories are covered equally (arithmetic, algebra, geometry, and miscellaneous [probability, data interpretation, counting and ordering problems, special symbols, logical analysis]).

- 11th-12th Grade Competition:
SAT Prep Plus 2018: 5 Practice Tests + Proven Strategies + Online (Kaplan Test Prep)

Make sure all four problem categories are covered equally (arithmetic, algebra, geometry, and miscellaneous [probability, data interpretation, counting and ordering problems, special symbols, logical analysis]).

Please note that competition questions will NOT be limited to questions from the above-listed practice materials.

Provide snacks and refreshments for your team when they practice. Encourage them, challenge them and remind them often of what is at stake, i.e., awards, which may include college scholarships for high school students, a possible trip to central Florida and accommodations at a central Florida hotel. In addition to the above-mentioned awards, the benefits of participating will increase students' study skills, sportsmanship, teamwork and knowledge of mathematics.

Final Competition Calculators

Each Center will be responsible for providing the calculators for their team members. Only T1-30Xa and TI-30XIIS calculators can be utilized during the competition.

E. PRE- AND POST-TESTS; TEAM REGISTRATION

The team Coach or designee for each team will administer Pre- and Post-tests. The test scores must be submitted to the Florida Education Fund. Listed below are deadlines for submission:

Pre-tests by November 3, 2017

Post-tests by February 17, 2018

Centers that submit their team registration information after February 19, 2018, will be assessed a \$50 late fee.

F. STATE COMPETITION ATTENDANCE

Regardless of placement in the State Competition, each team must attend the entire State Competition and the entire NAS Pre-College Summit and Brain Bowl Awards ceremony in March 2018. If a team fails to attend, the team will be assessed a \$50 per student and \$100 per coach fine, unless the team's absence has been pre-approved in the event of an emergency. To obtain such approval prior to the end of the Competition, the coach must submit an Early Release Request Form to the proctor, whose decision regarding the Request will be final. To obtain approval once the Competition has concluded, the coach must submit an Early Release Request Form to an FEF officer, whose decision regarding the Request will be final.

GLOSSARY

1. **Alternate/Runner** – The alternate will be substituted into the competition between matches. As the runner, the alternate will be responsible for giving the team's answer sheet to the scorer.
2. **Coach** – The person(s) who prepares the 5 students for the Brain Bowl Competition.
3. **Counter Protest** – Protest filed against the outcome of an already filed protest. A team has 2 minutes to file a counter protest after the proctor's decision.

4. **Early Release Request Form** – Instrument used by the coach in the event of an emergency to request approved absence from any portion of the State Competition, the NAS Pre-College Summit, or the Brain Bowl Awards ceremony.
5. **Invalid Protest** – a) a team files a protest or counter-protest that is not valid (team may be assessed a 5-point penalty); b) when the same team files more than one invalid protest or counter-protest during the competition (sponsoring COE will be assessed a \$100.00 fine).
6. **Match Questions** – During the quarter-final, semi-final and final rounds, each match will consist of the same number of problem questions for each team to solve, up to ten (10) problem questions per match.
7. **Ombudsman** – The person who is responsible for monitoring team members when the necessity may arise for a team member to leave the area of competition (e.g., bathroom break) and monitors the room to insure that no team member serves as an alternate for two (2) consecutive matches, there is no in/out audience traffic, and there is no written/audio/visual recording during the competition. S/he also acknowledges the protest form in order to notify the proctor of a possible protest.
8. **Penalty** – The loss of point(s) or monetary loss due to infraction of a rule stated in the Brain Bowl Rules document.
9. **Proctor** – The official authorized to make the final decision for any protest and who reads the math problems and answers for the match.
10. **Protest** - A claim that a rule violation occurred during the match or that a proctor misinterpreted a rule that would change the outcome of a match.
11. **Protest Form** – Instrument used by the coach to notify the ombudsman or proctor that s/he would like to file a protest.
12. **Round** – Rounds to be played will minimally include quarter-final(s), semi-final, and final. Rounds are played in order to pare down the teams.
13. **Scorekeeper** – The person who records the official scores for each match during the competition.
14. **Scorer** – The person responsible for scoring answers to math problems.
15. **Sudden Death**- In sudden death, a problem will be given and the team with the first correct answer wins. The correct answer includes the calculation and the answer. In the event no team has the correct answer, a different question will be given and a new sudden death playoff round will begin.
16. **Team** – A group of 5 students competing in the competition
17. **Time Limit** – The time allotted to determine point value for answers to math problems.
18. **Timekeeper** – The person who keeps a team's official time for answering problems.