Team Math Quest

LEVEL: Middle/Junior High School (Grades 6-8)

TYPE OF EVENT: Team by Math Category

COMPOSITION OF TEAM: 3 Students per school-based team

NUMBER OF TEAMS: Preliminary – Determined by your MESA Center
Regional – 3 teams per category per MESA Center

SPONSOR: Marvin Maldonado, UC Irvine MSP Center

OVERVIEW: Students work as a team to solve a set of challenging, non-routine problems that require core mathematical knowledge, creative deductive abilities, and collaborative reasoning skills. The event is designed to introduce, develop, and foster the use of various strategies to solve exciting and complex mathematical problems.

CATEGORIES:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>FOR STUDENTS CURRENTLY ENROLLED IN:</th>
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<tbody>
<tr>
<td>I</td>
<td>General Math or Pre-Algebra</td>
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<tr>
<td>II</td>
<td>Algebra I or Geometry</td>
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MATERIALS: The Host Center provides the following:
- Set of math problems per team
- One Score Sheet per team
- Pencils

The team provides the following:
- Calculators (Acceptable calculators are described in Rule #3.)

RULES:

1) A team is composed of 3 students from the same school site. All three members must be eligible to participate in the same category.

2) Teams are given **50 minutes** to solve as many problems as possible from a **set of 30**. Problems do not need to be solved in numerical order.

3) Only non-QWERTY calculators are permissible and must be supplied by the team. Calculators that have typewriter-like keyboards, require an electrical outlet, make noises, or use paper are not permitted. Additionally, devices with embedded calculator functions such as cell phones, PDAs, organizers, laptops or handheld computers are not allowed.
4) Books, mathematical tables, or other resource materials cannot be used during the test.

5) The Team Information section of the Score Sheet must be legibly and thoroughly completed.

6) Scratch paper is not allowed. Each problem is printed on a separate sheet of paper. Team members may use both sides of this sheet to solve the problem. **Any work done on this sheet will not be used for scoring purposes**

7) Only answers clearly written on the Score Sheet are judged. Answers must be in reduced form and with appropriate units of measurement.

**EVENT PROCEDURE:**
1) Before beginning the timed event, a proctor will briefly review the event guidelines with all student participants, verify that only non-QWERTY calculators are present, and distribute pencils.

2) Each team will be given a Score Sheet. Per Rule #5, each team is responsible for legibly and thoroughly completing the Team Information section at the top of the Score Sheet.

3) Each team will be given the appropriate set of 30 problems in a manila file folder or large clasp envelope. Per Rule #6, scratch paper will not be provided.

4) Once a problem is solved, the team must record the answer in the corresponding space on the Score Sheet and continue with problem solving until the end of time is called.

5) The proctor will announce when 5 minutes and 1 minute remain.

**SCORING:**
1) Each correct answer is worth 4 points. Each incorrect answer is penalized 1 point. Non-responses, or blanks, will not be counted. The final team score is calculated as follows:

   \[ Team \ Score = (# \ of \ correct \ answers \times \ 4) - (# \ incorrect \ answers) \]

2) In the event of a tie, a tie breaking procedure will be implemented to determine placing.

3) Awards will not be given to teams with zero or negative scores.

**AWARDS:**
- Preliminary event: Medals will be awarded to each member of the 1st, 2nd, and 3rd place teams in each category.
- Regional event: A school trophy will be given to the 1st, 2nd, and 3rd place teams in each category. Additionally, each winning team member will receive a corresponding medal.

**ATTACHMENTS:**
- Sample Score Sheet
# TEAM INFORMATION

School: ________________________________
Center: ____________________________
Student Names: ________________________________ Grade: __________________
Current Math Class: __________________

Note: All answers must be in reduced form and include appropriate units of measurement.

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<tr>
<th>#</th>
<th>Team Answer</th>
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FOR JUDGE’S USE ONLY

\[ \frac{\text{# correct answers}}{4} = \]  
\[ \text{# incorrect answers} \times 1 = \]  
(\text{do not include non-responses})

SCORE