



**Math Olympics**  
**Math Kit for All Grades**

## **Math Olympics**

The purpose of this kit is to generate enthusiasm for math among students in your after-school program. This activity can take place over a week or an extended period of six weeks. The longer the time frame, the more math activities you will have to select from when preparing the final Olympics.

## **Groupings**

You may wish to divide students by grade level. The advantage is that the math problem the students do could support the grade level math and could also focus on a second experience with the school day lesson.

You may wish to divide students across age groups, for example K-1, 2-3, 4-5, or K-2 and 3-5. If using this in middle school, this would be a preferred option so that students who would like to participate in this club activity could be grouped together. Give each team member a name tag with a colored dot so the team can be identified.

The first order of business for the team will be to name themselves the Green Gargantuans (or something that has the color and then a team name.)

## **Preparation**

If you are doing a one day activity, teams will need 2 hours to “prepare for the Olympics” and then the Olympics will last for 1 hour.

If you are going to run the activity over a longer period, teams will need 2 hours to “prepare each of the possible Olympic activities.

During each session, give teams one activity to work on including basic facts, assorted math games, and specific math problems. The best place to find appropriate grade-level math problems is to make a copy of the students’ homework so you will know what each grade level is currently working on.

**Students on each team must select one or more of the following types of activities to compete in. The choices are:**

**Individual Competition** (student will participate alone, usually with math facts, basic number problems +, -, X, ÷) 1<sup>st</sup> grade should focus on addition facts, 2<sup>nd</sup> grade on subtraction facts; 3<sup>rd</sup> grade on multiplication facts, 4<sup>th</sup> grade on division facts. **2 Person Team Competition** (Students are partners with an older student or a peer, and each is expected to support the efforts of the other team member in completing the math challenge.) **3 Person Team Competition** (Students are on a team of three who are working on age-appropriate logic puzzles or Sudoku puzzles).

All team members will compete in the final “relay” activity. This is a collection of 25 problems—taken from the homework assignments—and team members will work one problem of choice and then pass the responsibility on to the next team member.

## **Competitions**

**Individual Competition—Participates in both activities:**

**Math Facts:** Each individual receives a “math fact” test of 100 problems. Student writes his/her name on the back of the paper. When “go” is called, student turns over his/her paper and begins to work on the problems. (A math fact test consists of the addends or factors from 1-10 or 12 added or multiplied together, or the sum or product divided by one of the numbers (addend or factor) to find the difference or the quotient). Set a time limit to complete the 100 problems (no more than 5 minutes). If student complete prior to the time limit they are given five points. Correct the problems. Student receives one point for each correct answer (and the bonus points if the work was completed prior to the time limit).

**Game Time:** Select a game that can be played by an individual student—games such as Rolling to 0 which has the student roll 5 dice and then add, subtract, multiply or divide until the answer is 0; or Countdown, which has students put playing cards in order from 10 through 1 (Ace), by stacking the cards from a 4 by 4 card grid. You can select other games that you utilize

with students, however the game must be suitable to play alone. Give students a time limit and have them play the game 3 times. Select the best time for each individual student. Give the student with the lowest time 10 points, 2<sup>nd</sup> place 8 points, 3<sup>rd</sup> place 6 points, 4<sup>th</sup> place 4 points, and all other players 2 points.

## **2-Person Team**

### **Math Challenge:**

Two person team is given a sheet of 5 different types of math problems (grade level appropriate—collected from the students' homework).

The team works together to create a “recipe card” for each problem, listing the steps needed for the completion of each problem.

**For example: Problem is  $23 + 41 =$**

1. Write the problem vertically.
2. Add the 2 numbers in the one's column ( $3 + 1$ )
3. Write the total, 4 underneath the equal line.
4. Add the 2 numbers in the ten's column ( $2 + 4$ )
5. Write the total, 6, underneath the equal line.

## **3-Person Challenge**

### **Logic Puzzle or Sudoku**

The challenge for the 3-person team is to either complete a Logic Puzzle (you can get these on line and/or from a magazine that has this type of puzzles) or a Sudoku (also available on line or in a book.) Give team a time limit. At the end of the time, team gets one point for each correct answer (in the logic puzzle, this will be the number of correct placements, in the Sudoku it will be the numbers that are in the correct place in the puzzle).

## **Whole Team**

### **Math Relay**

The Team activity is a Math Relay. All of the team will work to complete 20 problems on a set of work sheets. One at a time, the team member comes to the table, completes one problem, and then returns to “tag” the next person on the team who completes his/her turn, and then “tags” the next person. The entire team participates in Math Relay.

Each team member must take a turn in the relay.

Team receives the number of points as indicated by correct answers.

## **Awards**

All participants receive a Math Olympics certificate

Teams determined to be in 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>, place—based on the total number of points that the entire team has collected in each of the activities. Ribbons can be given or you may want to consider medals. These can be purchased on line for as little as \$1.00 a medal.



For more information, contact

Consult 4 Kids at

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