

**M**ATHCOUNTS® is a national middle school program that encourages students to increase their math skills through learning and competition. Students meet weekly (Mondays) for practice.

**A** practice session includes correcting weekly assignment and practicing various types of problems individually and in groups of 2-3 to improve the students' speed and accuracy. See **MATHCOUNTS.org** for more information. At the end of the practice season there will be a school-level competition.

**T**op students advance from school competition to regional, state and national competitions. The top 8 students from the LBMS will go to the Central MA regional competition. The top three teams and an All-Star team from the regional go to an all expense paid trip to state competition. The top four students in the state will take an all expense trip to national competition.

**H**aving math as your best subject is not required to join! All you have to have is a desire to learn and be willing to do what it takes to become better! *We have snacks at every practice!* Children can earn small prizes for good performance, for meeting specific individual goals, and for doing additional work at home.

Dr. Mel Govindan will continue to serve as the coach and he can be contacted at [govindan@verizon.net](mailto:govindan@verizon.net). He will be assisted by Mrs. Vasanthi Nagareddi.

### Sample Contest Problems

6. Round tables seating 8 people and rectangular tables seating 12 people are being used at a banquet for 8<sup>th</sup> graders. The ratio of round tables to rectangular tables is 2 to 1. How many tables are used to seat 336 students at the banquet, if no table has an empty seat?
8. The sum of six consecutive positive integers is a perfect cube. What is the least possible sum of the six consecutive integers?
16. There are only six red, four blue and eight brown buttons in a jar. A button is randomly selected from the jar. What is the probability that the button selected is *not* blue? Express your answer as a common fraction.
17. An airline reported a total of 2500 flight departures and, of those, 1760 departed on time. What percent of the airline's flight departures were on time? Express your answer to the nearest tenth.



Answers to sample problems:

6. 36 tables
8. 27
16.  $\frac{6}{7}$
17. 70.4%

# About the MATHCOUNTS at Luther Burbank Middle School

## What is MATHCOUNTS?

a. A Math competition consisting of:

- i. Sprint Round - 30 problems in 40 minutes. Calculator NOT permitted
  - ii. Target Round - 8 problems: four sets of two problems, six minutes each. Calculator Used
  - iii. Team Round - 10 problems in 20 minutes - Team works together. Calculator Used.
- b. School level competition using the same format as the regional competition will be held in late January 2008. We will conduct one or two practice competitions prior to that so that the children will become familiar with the format and learn to develop speed.
- c. Regional competition in Shrewsbury (early February). The coaches will select 8 students to represent LBMS in the regional competition. This will be based on the scores in the school competition and the children's performance during the weekly practice sessions as well as the practice tests.
- d. If our team places in the top 3 in the regional, we will move up the state-level competition (usually in March)

## Expectations

Students in MATHCOUNTS can expect to solve challenging

problems involving math and logic in a competitive setting. Some topics are not covered in the regular mathematics curriculum. You will also be given instruction on how to solve these types of problems. The following are specific expectations.

- a. Attend weekly practice sessions and work diligently. Ask plenty of questions and get involved in group activities. You are expected to be seated in your seat and work problems – no running around in the classroom or hallway.
- b. Maintain a Mathcounts folder in which you will keep all worksheets and handouts. Bring these to the weekly practice sessions along with a pencil and calculator.
- c. Complete the weekly homework. Normally this would be completing the remaining 5 problems of one or two worksheets from which we would have completed the first 5 problems in the class. Also memorize the assigned "**Math Tool Box**" items.
- d. If you miss a practice session go the Share Point site for the Mathcounts at the LBMS site and download the worksheet and work on them before coming the next week.
- e. Show full respect to the coaches who are volunteering their time. If, for any reason, the coaches feel that you are becoming a disruption to the

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program, you will not be able to continue in the program.

- f. Those who want to do well will need to do more than just the minimum assignments - ***MATHCOUNTS is not about grades, it's about getting better at math and learning problem-solving skills that would be valuable to you as you progress to study higher-level math, science and engineering.***