

## **Math Club Activities (Irina Lyublinskaya, The Peddie School)**

1. Problem of week – we give away \$5.00 to the school snack bar each week to a student selected randomly from all students who submitted correct solutions to the problem of week.. I set up problem of week on line at WWW Interactive Mathematics Server at <http://wims.unice.fr/wims/wims.cgi>. This web site allows to create a class (Math Club) and choose interactive activities from different topics, including recreational mathematics. Students register, solve problems on-line, and the server provides scoring for the teacher. It is time effective and fun for the kids. There are multiple levels and flexibility for the teacher to choose different number of exercises per session or timed sessions. Teacher can also monitor deadlines by setting up expiration date for each problem. Sample problems that I used:
  - a. Arithmetic tables (fill table with given numbers for given sums)
  - b. Elliptic billiard (find points where the ball hits the walls)
  - c. Triangular shoot (find centers of triangle)
  - d. Rotation shoot (find center of rotation)
2. Mathematics Board Walk – we set up 4-6 tables during common free period or lunch. Each table has a game for students to play. Winners get lollipops. The games used are: Set, Challenge 24, tangrams, Knock Out, Krypto, Shut the Box, etc. All games are simple for students of all levels, and provide fun and engaging activity for students and teachers. We had over 100 students (our school has 500 students) participating during one hour of the boardwalk.
3. Mathematics Jeopardy – year round team competition for all students. Teams compete against each other, topics range from pre-algebra to calculus, usually 4-5 categories. Standard quizzle equipment is needed for this. We have a set for two teams to compete. Our tournament is based on

elimination. We usually have 8-12 teams competing during one year. It would be a good idea to have champion to compete with teacher's team, but I was not able to get our math teachers to commit to this event.

4. We started Math Jeopardy at local elementary school as part of community service. This is one day event, usually done in one class only (about 20 kids that are divided up into 4 teams), 3 rounds to determine a winning team. Then it can be done in all classes at the same grade level and a final round is a tournament between winning teams of each class.
5. Fund-raising – we created flash cards for different courses of mathematics, formatted and printed them on card stock paper and sale them to the students before final exams. The profit is huge, since there is a very little expense involved. Students were assigned to type highlighted formulas and theorems from 2-3 chapters of textbook. Different group of students formatted these documents to have six 3x5 cards on each page. Then it was copied as double-sided card stock, so that property is on one side and the actual formula is on the other side. Each course was color coded differently. Students buying multiple sets had discounts as well as MAT members. The price range was from \$5 for set of 20 cards to \$15 for set of 80 cards.
6. Guest lecture series – we invited parents of our students who dealt with mathematics applications in their work to conduct a dinner guest lecture . Math club provided pizza, drinks and desert. We were able to organize 2-3 lectures per year.