

2005 Kaohsiung Invitational World Youth Mathematics Intercity Competition

Robert Wong

Last year, Andy Liu, a professor at the University of Alberta, asked me to lead a team from Edmonton in competing in the 2005 World Youth Mathematics Intercity Competition (WYMIC) in Kaohsiung, Taiwan. Without much hesitation, I accepted the task.

WYMIC aims to provide an opportunity for young people from around the world to meet, to promote friendship and understanding between the world's young people, and to identify and nurture mathematical talent.

After meetings with parents and e-mail and phone conversations with organizers in Taipei and Kaohsiung, the Edmonton team was set for two weeks of competition and sightseeing in Taiwan. This was the first year Canada sent a team to WYMIC.

The Team

Each WYMIC team is made up of a leader (a math teacher, coach, professor, representative from the education ministry or parent); a deputy leader, who works closely with the leader and the local organizer (I was fortunate to have Alan Tsay, who speaks Mandarin fluently); and four students in Grade 9 or under. The members of the Edmonton team were deputy leader Alan Tsay (Grade 12 student, Harry Ainlay High School), Chenxi Qiu (student, Vernon Barford), Ray Yang (student, Vernon Barford), Sean Jia (student, Grandview Heights School) and Sven Zhang (student, Avalon Junior High School).

Coaching

The four contestants went through extracurricular training from Andy Liu and tried sample problems from the 1999 and 2000 competitions (available at www.nknu.edu.tw/~math/kiwymic/index.htm).

Three of the four students were also invited to the week-long Calgary Math Summer Camp as a result of good standing in the Edmonton Junior High Mathematics Invitational, Part II.

Cost

The University of Alberta sponsored each of the six team members for \$500, but we bore the balance of the cost of flights and prearranged local tours. We each had to contribute about \$1,500 Canadian, not including local expenses such as food, transportation and accommodations. WYMIC paid for all expenses for the duration of the event (August 2–5). We kept our accommodation costs to a minimum by staying at Alan's home in Taipei before the competition and with other host families after the competition. We were also fortunate that Mr Wen-Hsien Sun, executive director of the Chiu Chang Mathematics Education Foundation in Taipei, paid for part of our postcompetition tour. Without all this generous support, our costs would have been much higher.

Participants

The 2005 WYMIC was the largest ever, involving 34 teams from 11 regions (Macau, Philippines, Fuzhou, Hong Kong, South Africa, Thailand, Indonesia, Singapore, Canada, India and Taiwan). Including contestants, leaders, parents and companions, participants numbered around 250.

WYMIC Involvement

In addition to the WYMIC core committee made up of math educators (including professors), organizations involved included the Taiwan Ministry of Education's National Science Council, the Education Bureau of Kaohsiung City Government, the National Kaohsiung Normal University, the Mayoral Office of Kaohsiung, the Chiu Chang Mathematics Education Foundation, Kaohsiung Municipal San Min Junior High, and Shu-Te Home Economics and Commercial High School. Many volunteers, student teachers and students helped run the event.

The cost to put on the 2005 WYMIC was approximately 2 million Taiwanese dollars (C\$80,000). When WYMIC was seeking a host country for the seventh WYMIC in 2006, only three countries—India, Thailand and South Africa—expressed interest. No other representatives had the authority or financial funding to be contenders.

The Competition

WYMIC has two parts: an individual competition and a team competition.

The individual competition is two hours long. Section I contains 12 numerical-response questions worth five points each. Section II contains three full-solution questions worth 20 points each.

The team competition is one hour long and consists of 10 full-solution questions worth 40 points each. During the hour, the team members work together to solve as many questions as possible, with partial marks given for incomplete solutions.

Awards

Approximately half of the contestants receive individual awards in the form of gold, silver and bronze medals. The total score of the top three contestants in each team is considered the team score. The top three teams in each grouping receive a group award. Other group awards are given to teams for outstanding efforts in the categories of spirit of cooperation, originality, modelling and popularity.

The Edmonton team won the group award for modelling. The top three countries that won the academic awards were Taiwan, Hong Kong and Thailand.

Events

Day 1

Competitors checked in at the Military Hostel. A team leaders meeting was held. Everyone was provided with lunch and supper.

Day 2

The opening ceremony with dignitaries was held at the university and received local news coverage. Competitions ran from 10 AM to about 2:30 PM. While the contest was under way, leaders and companions were treated to a guided tour of the National Science and Technology Museum, the Kaohsiung Museum of Fine Arts and the old British Consulate. During

dinner, students took turns performing on stage in a cross between a talent show and a cultural show. Members of the Edmonton team had brought along plenty of small gifts to exchange with others; giving and receiving souvenirs is customary at these events.

Day 3

A tour of the Taiwan Aboriginal Culture Park was cancelled due to an approaching typhoon. Instead, everyone went on a boat tour along the Kaohsiung Harbor followed by a visit to the National Science and Technology Museum. A formal banquet was held at the prestigious Grand Hotel in Kaohsiung. We had brought along some more-expensive gifts for the formal banquet, because we knew that we would be receiving the same from the dignitaries.

Day 4

We attended the closing ceremony, which was exceptional. We were all pleasantly surprised by the greeting, the orchestra, the performance and the prizes and couldn't help but feel important.

Tips and Warnings

Here is some advice for travelling to Taiwan and for participating in WYMIC.

Cash your Canadian dollars at the airport. Many banks in Taiwan either do not buy Canadian cash or accept only Thomas Cook traveller's cheques (you must bring along your passport to cash traveller's cheques). Instead of desperately trying to find a bank that will cash your Canadian dollars, pay the equivalent of a dollar transaction fee at the airport. It is well worth the money!

The streets of Kaohsiung contain hundreds of thousands of mopeds driven by men and women of all ages. Be careful when you walk down the street, because the mopeds can sneak up on you in an instant. The same goes for driving. Constantly be aware of your surroundings. Oh, yeah—don't try to hitch a ride on one of the mopeds. It could be a hair-raising experience (at least that's what my Hong Kong counterpart told me)!

In Taiwan, there is no tipping when eating out, but saying thank you is always appreciated.

Exchanging souvenirs with other participants is customary at events such as WYMIC, so bring along various gifts. We brought Canadian flags, as well as pins from Edmonton, Alberta and Canada. We also brought more-expensive gifts for the

dignitaries, the members of the organizing committee (from the National Kaohsiung Normal University) and our host families. Be prepared to receive gifts that are difficult to bring home on the plane. For example, our gift from the vice-minister of education was a rather large porcelain dragon figurine in a glass encasement.

Make sure to have a team uniform of some sort. There will be plenty of photo opportunities, and wearing street clothes won't do on many occasions.

More Information

Visit www.nknu.edu.tw/~math/kiwymic/index.htm for results and photos from the 2005 WYMIC, as well as sample problems from past competitions. This year's WYMIC will be held this summer in the city of Fuzhou in the Fujian province of China.

Robert Wong is a teacher at Vernon Barford Junior High School in Edmonton.



The Edmonton team at the opening ceremony



Dignitaries and competitors at the opening ceremony

The Edmonton team with the Hong Kong team



Kaohsiung, Taiwan



National Science and Technology Museum



The Edmonton team presenting at the cultural evening

Left to right: Alan Tsay, Chenxi Qiu, Sven Zhang, Sean Jia, Ray Yang, Mr Wen-Hsien Sun, Robert Wong



Dinner at the Military Hostel



The closing ceremony