

National Project of Mathematics Olympiads

Olympiads in mathematics are under way in some 85 countries and they occur on national, regional and international scales. If properly structured Olympiads may serve as major instruments for promoting sciences to young students. They are vehicles for improvement of science teacher's skills, and they aid in the detection of young scientific talents. To achieve these three goals, the Olympiads should be large-scale events in each country, at several grade levels and in three different stages at each level. The first test is very friendly to students and their teachers, with many winners and simple prizes. The second stage involves those who performed well in the first stage. Finally, a third stage determines the best talents, who then compete internationally and are awarded fellowships for further science training. This is precisely the structure of the Brazilian National Mathematical Olympiads promoted by the Brazilian Mathematical Society and the National Council for Scientific and Technological Development – CNPq. IM-AGIMB has been a new partner in this important activity with two goals: to promote regional or state Olympiads within Brazil and to expand the Brazilian participation in international competitions, specially the International Mathematics Competition for University Students. IM-AGIMB's contribution lead to a participation of more than 130,000 students in the Regional Olympiads in different states of Brazil, as well as to excellent performances at the International Mathematics Competition for University Students, including being awarded a golden medal in 2004.

Incentive to the Regional Olympiads in Brazil in 2002

16 Regional Olympiads took place in Brazil, with the participation of 2.796 schools and a total of 83,417 students of elementary and high schools.

Regional Olympiads	Schools	Students
V Olimpíada de Matemática UNIVATES	102	2.960
III Olimpíada Metropolitana de Matemática	30	460
Olimpíada de Matemática - Fase Regional Bahia 2002	167	3.000
XV Olimpíada Campinense de Matemática	60	2.510
V Olimpíada Regional de Matemática de Santa Catarina	40	1.000
Olimpíada Paulista de Matemática 2002	900	35.000
Olimpíada Regional de Matemática Grande Porto Alegre 2002	20	1.200
XI Olimpíada de Matemática do Estado de Goiás	500	1.800
Olimpíada Capixaba de Matemática 2002	267	17.792
Olimpíada Paraense de Matemática 2002	20	2.500
Olimpíada de Matemática do Estado do Rio de Janeiro 2002	230	3.000
II Olimpíada Piauiense de Matemática	25	1.049
Olimpíada Mineira de Matemática 2002	350	4.000
Olimpíada Pessoense de Matemática	35	350
XIII Olimpíada de Matemática do Rio Grande do Norte	30	1.500
Olimpíada Cearense de Matemática 2002	20	2.500
Total	2.796	83.417

Incentive to the Regional Olympiads in Brazil in 2003

18 Regional Olympiads took place in Brazil, with the participation of 2.928 schools and a total of 108,390 students of elementary and high schools.

Regional Olympiads	Schools	Students
I Olimpíada Alagoana de Matemática	19	490
VI Olimpíada de Matemática UNIVATES	68	5.556
IV Olimpíada Metropolitana de Matemática	41	550
Olimpíada de Matemática - Fase Regional Bahia 2003	167	2.830
XVI Olimpíada Campinense de Matemática	204	3.000
VI Olimpíada Regional de Matemática de Santa Catarina	102	5.074
Olimpíada Paulista de Matemática 2003	1100	45.000
Olimpíada Pernambucana de Matemática "Ruy Luís Gomes" 2003	40	2.400
Olimpíada Regional de Matemática Grande Porto Alegre 2003	60	2.400
XII Olimpíada de Matemática do Estado de Goiás	573	2.400
Olimpíada Capixaba de Matemática 2003	312	20.944
Olimpíada Paraense de Matemática 2003	17	1.500
Olimpíada de Matemática do Estado do RJ 2003	30	200
III Olimpíada Piauiense de Matemática	30	1.850
Olimpíada Mineira de Matemática 2003	70	4.055
Olimpíada Pessoense de Matemática	20	1.500
XIV Olimpíada de Matemática do Rio Grande do Norte	35	1.791
Olimpíada Cearense de Matemática 2003	40	6.850
Total	2.928	108.390

Incentive to the Regional Olympiads in Brazil in 2004

20 Regional Olympiads took place in Brazil, with the participation of 3.849 schools and a total of 131,676 students of elementary and high schools.

Regional Olympiads	Schools	Students
II Olimpíada Alagoana de Matemática	25	600
VII Olimpíada de Matemática UNIVATES	100	6.820
V Olimpíada Metropolitana de Matemática	70	600
Olimpíada de Matemática - Fase Regional Bahia 2003	300	5.000
XVII Olimpíada Campinense de Matemática	60	2.500
VII Olimpíada Regional de Matemática de Santa Catarina	126	4.000
Olimpíada Paulista de Matemática 2003	1.500	60.000
Olimpíada Pernambucana de Matemática "Ruy Luís Gomes" 2003	110	5.500
Olimpíada Regional de Matemática Grande Porto Alegre 2003	80	3.000
XIII Olimpíada de Matemática do Estado de Goiás	300	3.000
Olimpíada Paraense de Matemática 2003	17	1.956
IV Olimpíada Piauiense de Matemática	48	2.500
Olimpíada Mineira de Matemática 2004	450	4.500
Olimpíada Pessoense de Matemática	35	1.500
Olimpíada Cearense de Matemática - 2003	180	20.000
Olimpíada de Matemática da Região do ABC	20	200
Olimpíada de Matemática de Rio Preto	32	1.500
Olimpíada Regional de Matemática do Litoral Norte do Rio Grande do Sul	115	2.500
Olimpíada Regional de Matemática da Unochapecó	81	4.000
Olimpíadas Sergipanas de Matemática	200	2.000
Total	3.849	131.676

International Olympiads

The participation of Brazil at the International Mathematical Olympiads has grown exponentially, including the International Olympiad, the Ibero-American Olympiad, Cone-Sul, Ibero-American in Mathematics, the International Mathematical Olympiads for University Students.

May Olympiads

This competition organized for young students is held in two levels: Level 1 for students up to 13 years old and Level 2 for students up to 15 years old, from Latin America countries, Spain and Portugal. In Brazil, this Olympiad is only for those students that have been awarded in the Brazilian Mathematics Olympiads (Golden, Silver and Bronze Medals and Honor Citation). The tests of the selected students are sent to the Organizing Committee in Argentina, where the final classification is processed.

In 2002, 2003 and 2004, Brazil got the first place in the general classification by countries, obtaining the maximum number of possible medals in each event (1 Golden Medal, 2 Silver Medals, 3 Bronze Medals and 4 Honor Citation in each participation)

Cone Sul Mathematics Olympiads

It is an international competition in which countries from the South America South Cone take part, represented by 4 students teams that are not yet 16 years old until December 31st. of the year before the celebration of the Olympiad.

2002, Fortaleza - CE: Brazil was the first among all participating countries, winning all the golden medals of the competition. 3 Golden Medals and one Bronze Medal.

2003, Ica - Peru: Again, the Brazilian team achieved the best punctuation among the participating countries. 1 Golden Medal and 3 Silver Medals.

2004, Assunção - Paraguai: 1 Golden Medal, 1 Silver Medal and 2 Bronze Medals.

Ibero-American Mathematics Olympiads - OIM

It is an international competition in which the countries of Latin American, Spain and Portugal participate, represented by teams of at most 4 students under the age of 18 years until December 31st of the previous Olympiad.

2002, San Salvador - El Salvador: Brazil - 3 Golden Medals and 1 Silver Medal.

2003, Mar del Plata - Argentina: Brazil - 2 Golden Medals, 1 Silver Medal and 1 Bronze Medal.

2004, Castellón - Spain: Brazil – Participants: **4 Golden Medals!**

International Mathematics Olympiads - IMO

Organized since 1959, it is the most important international competition. About 100 countries participate in that competition, represented by teams of up to 6 secondary school students or that have not yet entered at the University or equivalent, at the date of the celebration of the Olympiad.

In the last four years, Brazil has consistently achieved performance. Of the 24 students that participated in the last four years, only two didn't get medals, but, even so, they were awarded Honor Citations.

2002, Glasgow - UK: Brazil - 1 Silver Medal and 5 Bronze Medals.

2003, Tóquio - Japão: Brazil - 1 Silver Medal, 3 Bronze Medals de Bronze, 2 Honor Citations.

2004, Atenas - Grécia: Brazil - 2 Silver Medals and 4 Bronze Medals.

International Mathematics Competition for University Students - IMC

In 2003 Brazil participated for the first time of the International Mathematical Competition for University Students with a team formed by 8 students from Brazilian universities (3 students of ITA, 1 student of UFRJ, 1 student of UNICAMP, 2 students of IME and 1 student of UFSC). In this competition main universities in the world participate such as, for example, Cambridge, École Polytechnique, Institute Max Plank, Technion Institute, Massachusetts Institute of Technology (MIT), Oxford University, Universidade Complutense of Madrid and University of Moscow.

The event took place from July 25 to July 31 through the University Dribble-Bolyai, in Cluj Napoca (Romania). 3 Silver Medals, 3 Bronze Medals, and 2 Honor Citations were awarded to Brazilian.

In 2004 Brazil participated for the second time in this competition with a team of 11 students (2 students of ITA, 3 students of IME, 1 student of UFRJ, 1 student of UNICAMP, 1 student from UFPI, 1 student from UFBA, 1 student from UFC and 1 student from UFGRS). We obtaining an excellent result once again: 1 Golden Medal, 3 Silver Medals, 3 Bronze Medals and 4 Honor Citations. Yuri Gomes Lima, a student from the **Federal University of Ceará** was awarded a **Golden Medal** and was classified globally in first place.

Ibero-American Mathematics Olympiads of Universities - OIMU

It is an international competition where the participants should not possess a University and should be registered at a University as an undergraduate student. Brazil organizes this competition since 2002.

In 2002 and 2003 Brazil got the first place in the general classification obtaining the maximum of medals in each competition: 1 Gold Medal, 2 Silver Medals, 4 Bronze Medals and 3 Honor Citations.