



## Other Editions

### 37th Portuguese Mathematics Olympics

#### Brothers from Santa Maria da Feira make history at the 37th Portuguese Mathematical Olympiads

The brothers Tiago Mourão (9th year) and Nuno Mourão (7th) from Santa Maria da Feira took the lead and took home a gold and a bronze medal, respectively, at the 37th Portuguese Mathematical Olympics (OPM).

They study at the same school, have two years difference and competed in different categories, but the taste for Mathematics is the same. Tiago is already repeating; it is the third consecutive year that collects a gold medal. Nuno is a newcomer. In the past, the older brother of the medalists, Paulo Mourão, was a winner of this competition. All from the Basic School Fernando Pessoa, in Santa Maria da Feira.

In this 37th edition, the Secondary School D. Filipa de Lencastre, managed to repeat a feat of 2017 and snatched three medals. Leonardo Tavares (9th year) is responsible for a gold medal, David Nassauer (12th year) won a silver and João Rocha (11th year) a bronze.

Sebastião da Gama Secondary School in Setúbal hosted the Final of the 37th Portuguese Mathematical Olympics, which featured a special guide, youtuber Inês Guimarães, better known as MathGurl. The author of the book "Mathematical Challenges That Make You Go Crazy" has also been a participant in the Olympics.

The closing ceremony of the competition took place on April 7th at Luísa Todi Forum in Setúbal. Jorge Buescu, Professor of the Faculty of Sciences of the University of Lisbon and former president of the Portuguese Society of Mathematics, presented the lecture "The Magic of the First Number" before the announcement of the winners.

The winners of categories A and B will be able to join the delegations that will represent Portugal in the international competitions after attending an internship in project Delfos, in the Department of Mathematics of the University of Coimbra.

The OPMs are organized by the Portuguese Society of Mathematics in partnership with the Department of Mathematics of the University of Coimbra. They have the support of the Ministry of Education, NOVO BANCO, Ciência Viva, Fundação Calouste Gulbenkian and Pathena. This edition was also supported by the Sebastião da Gama School Group, Texas Instruments, Happy Code, Gradiva and Editorial Presença.

### 34th Portuguese Mathematics Olympics

It was a true marathon, one that 40 thousand pupils from all over the country began a few months ago, during the first elimination round of the 34th Portuguese Mathematical Olympiad (PMO). 20th



March last was a banner day for more than 90 olympians who, after lots of training and dedication, secured a spot in the national finals of the 34th PMO, and eagerly and enthusiastically lived out each minute of the prize award ceremony, which took place in the Luis de Freitas Branco High School, in Paço de Arcos, Oeiras.

In a competition that is still male-dominated, it is worth the two medals (one silver and the other bronze) which were won by Inês Guimarães (Riva D'Ave) and Maria Matilde Silva (Coimbra) in the B category, the most demanding one of the competition

The ceremony was graced by the presence of Henrique Leitão, winner of the 2014 Pessoa Prize, who won over all ages alike with his presentation on the “maths of the calendar.”

Many will return to the Olympiad next school year, but for some the competition is still not over. Next July, Portugal will be represented at the International Mathematical Olympiad, which will take place in Hong Kong, and, in September, at the Ibero-American Mathematical Olympiad, to be held in Chile. All of the A and B category prize winners classify for sought-after (but limited) places on the teams that will represent Portugal at these competitions.

The PMO is organized by the Portuguese Mathematical Society in partnership with the University of Coimbra Department of Mathematics, and are supported by the Ministry of Education, Ciência Viva, the Calouste Gulbenkian Foundation, NOVO BANCO and Pathena. This edition was also supported by the Luis de Freitas Branco High School, the Oeiras Town Council, Texas Instruments, Moche, Gradiva, ASA and by the newspaper Público.

### **33rd Portuguese Mathematics Olympics**

The national final of the 33rd Portuguese Mathematical Olympiad (PMO) ended with a top note: Francisco Tuna de Andrade, a 12th grader from Escola Secundária do Padrão da Légua, Matosinhos, won his 5th consecutive gold medal at the PMO (2011-2015), matching the record held by Miguel Santos, from Escola Secundária de Alcanena, who in 2013 obtained the same feat. Francisco has ended his participation in the Olympiad with a remarkable record in the history of this competition.

Congratulations are also in order to the remaining 89 participants of this final, whose performance was highlighted by the Minister of Education and Sciences, Nuno Crato, in the closing ceremony of the 33rd edition of the PMO, held at Escola Secundária Dr. Augusto César da Silva Ferreira, in Rio Maior. This occasion was also the time for awarding the 36 gold, silver and bronze medals – divided into the categories of Junior, A and B. This edition also marked the return of participants from the Azores to the final of the PMO, after a long absence. João Miguel Fonseca e Sousa, a 9th grader from Ponta Delgada, took home a bronze medal (category A) and the promise of bringing more colleagues to the competition.

After this edition of the PMO, the winners of the A and B category are now focused on international competitions as they may be part of the delegations that will represent Portugal abroad. This new stage will start with the International Mathematical Olympiad to be held in Thailand in July; Also in July the CPLP Mathematical Olympiad will take place in Cape Verde and finally, in November, the Iberian-American Mathematical Olympiad will take place in Puerto Rico.

#### **Calendar of the 2015 International Olympiad:**

4 - 16 July 2015: International Mathematical Olympiad (IMO) - Chiang Mai, Thailand

20 - 26 July 2015: CPLP Mathematical Olympiad – Cape Verde

6 - 14 November 2015 – Iberian-American Mathematical Olympiad (IAMO) – Mayagüez, Puerto Rico.

### **32nd Portuguese Math Olympics**

The Cultural and Congress Centre of Aveiro was the stage for yet another closing ceremony of the national final of the Portuguese Mathematics Olympiad (PMO). The winners received their medals from the hands of the Minister of Education and Science, Nuno Crato, who applauded the performance of these young people in the 32nd edition of the PMO. Also taking part in the awarding of the prizes were Miguel Abreu, Chairman of the Portuguese Mathematics Society (PMS), José Ribau Esteves, Mayor of Aveiro, Mário Lavrador, director of the Dr. Mário Sacramento Grouping of Schools, the host of this national final and Vítor Dinis, representative of Pathena.

The 36 medal winners – 12 in the Junior category, 12 in the A category and 12 in the B category – were seeded from a group of 90 students, selected from among over 40 thousand who took part in the various stages of this competition.

The winners of category B will now dispute the international stage of the Olympiad, which kicks off in July with the International Mathematics Olympiad (South Africa) and with the Mathematics Olympiad of Portuguese-speaking countries (Angola), ending in September with the Ibero-American Mathematics Olympiad (Honduras).

### The winners



## 31st Portuguese Math Olympics

Miguel Santos holds the record for the number of gold medals won in the competition.

Miguel Santos, 12th year pupil at Alcanena Secondary School, completed his participation in the Portuguese Mathematics Olympiad (PMO), which started in 2009, in perfect fashion.

For the fifth consecutive year, the pupil won a gold medal (category B) in the PMO, a result never achieved before in this competition. This record comes on top of another notable achievement: in 2011, Miguel became the first Portuguese entrant to win a gold medal in the International Mathematics Olympiad.

The results of the 31st PMO were known on the 17th of March, in the Municipal Auditorium of Albufeira, where the closing ceremony of the national final of the OPM was held, which ran between the 14th and 17th of March. Albufeira, the host city of this final, ended up by being rewarded with the gold medal won by David Andrade, 9th year pupil of Albufeira Primary and Secondary School, in category A.

The award ceremony was attended by the Secretary of State for High Education, João Filipe Queiró, the president of the Portuguese Mathematics Society, Miguel Abreu, the Mayor of Albufeira, José Carlos Rolo, the director of the Albufeira Grouping of Schools, Clara Pinto, and also António Murta of Pathena.

Although this episode of the “Olympiad” is over for some participants until the next academic year, for others the competition is not yet over: in the month of July Portugal will attend the International Mathematics Olympiad, in Columbia, and in the Portuguese-Speaking Mathematics Olympiad in Mozambique and, in the month of September, in the Iberian-American Mathematics Olympiad in Panama.

### The winners



## 30th Portuguese Math Olympics

The city of Leiria was the stage of the thirtieth Portuguese Mathematics Olympiad (PMO) and the home team met the expectations by winning two medals: one gold and a bronze.

Pedro Pereira, a 12th year pupil at Domingos Sequeira Secondary School, the school which hosted the National Final of the PMO, achieved the gold in Category B, the most advanced category of the competition.

The second medal for Leiria (bronze) was won by Mariana Gago (7th year), of the D. Dinis Primary School 2,3, in the Junior Category.

Miguel Santos' performance should also be noted as in 2011 he won the first Portuguese gold medal in the International Mathematics Olympiad. The student from Alcanena got the gold again in a national solo, just like what happened in his three previous participations in the PMO.

These and the other 87 participants in the final of the PMO were congratulated by the Minister of Education and Science, Nuno Crato, in the award session which was held in the José Lúcio da Silva Theatre in Leiria.

Portugal's representatives in the International Mathematics Olympiad (Argentina), in the Portuguese-Speaking Mathematics Olympiad (Brazil), both held in July, and also in the Iberian-American Mathematics Olympiad (Bolivia), booked for the month of September 2012 were chosen from among the participants of the PMO.

### The winners



## 29th Portuguese Math Olympics

The intriguing probability theory “did it again” in the 29th Portuguese Mathematics Olympics (PMO). In a competition with more than 42 thousand entrants, two preliminary rounds and 90 finalists, what would the probability be of two neighbours reaching the final and even both win gold medals?

Bruno Carvalho (7th year) and Francisco Andrade (8th year), who live in the same street in Matosinhos, are the protagonists of this event. But in this case, the good results cannot be put down just to luck, as this coincidence is only due to the merit of these two youngsters. Bruno Carvalho was also part of the first group of students who entered a new category in the PMO. In this edition, 6th and 7th year students took part for the first time in the recently created Junior category, which was added to the existing categories A (8th and 9th year) and B (10th to 12th year). The broadening of the Olympics to other levels of education will help to increase the competitiveness of the Portuguese team in the international tests in the future.

The medals and prizes were awarded in Braga, and was attended by Alexandra Marques, General Manager of the Directorate-General of Innovation and Curricular Development, in representation of the Ministry of Education, João Vieira of the Calouste Gulbenkian Foundation, Maria Rui of Ciência Viva (Living Science), Hortense Lopes dos Santos, head mistress of the host school Carlos Amarante Secondary School, Eduardo Gonçalves of Banco Espírito Santo and António Murta da Pathena. There was also a talk in the session on “The importance of Mathematics in Critical Software”, by Gonçalo Quadros.

It is from among the participants of the 29th Portuguese Mathematics Olympics that Portugal's representatives are chosen for the International Mathematics Olympics (Holland), the Ibero-American Mathematics Olympics (Costa Rica) and also the Portuguese-Speaking Mathematics Olympics (Portugal), the latter of which have their début scheduled for the end of July.

### The winners



## 28th Portuguese Math Olympics

In an exceptional feat, the brothers Miguel Martins Santos and João Pedro Martins Santos from Alcanena both won a medal in the 28th Portuguese Mathematics Olympiad, the closing ceremony of which was held on the 28th of March 2011 in the Garcia de Resende Theatre in Évora. Miguel, a 9th year schoolboy, won one of the three golds in category A (8th and 9th year), while João Pedro, in his 12th school year, won a silver in category B (10th and 12th year).

These students – as well as the other winners in both categories – received their medals from the hands of the Minister of Education, Isabel Alçada, whose support was fundamental for helping to expand the PMO which as from next year will include the 1st cycle (ages 6 to 10) and 2nd cycle (ages 10 to 12) of school education. The Minister Mariano Gago, who was unable to attend, was represented by the Secretary of State Manuel Heitor.

Also present were Évora City Hall represented by the Mayor, José Ernesto Oliveira, the headmistress of the host school Escola E.B. 2,3 de Santa Clara, Antónia Ilhéu, and Banco Espírito Santo – one of the main sponsors of the Olympiads -, represented by Eduardo Gonçalves. Other notable presences were those of the participants in the encounter of the organization of the Mathematics Olympiad of the Community of Portuguese-speaking Countries – a new competition that will be held for the first time soon.

The winning students in category B will now come up against former winners to represent Portugal in the International and Ibero-American Olympiads. In 2010, these competitions will be held in the Republic of Kazakhstan and in Paraguay, respectively.

### The winners



## 27th Portuguese Mathematics Olympiads, at Figueira da Foz

The awards ceremony of the 27th Portuguese Mathematics Olympiads, which involved more than 1,000 schools and 33,000 thousand students, took place on 29 March at the Figueira da Foz Casino.

Besides the Minister for Science and Technology, Mr. Mariano Gago, the representatives of the sponsors of the Olympiads also took part in the event, namely of the Ministry of Education, NOVO BANCO, Ciência Viva and the Calouste Gulbenkian Foundation, as well as Mr. Nuno Crato, Chairman of the Portuguese Mathematics Society, Ms. Bela Matos, Vice President of the Executive Board of the Dr. João de Barros Basic Education School, and Ms. Teresa Machado, councillor at the Figueira da Foz City Council.

The 24 winners – 12 in category A and 12 in category B – were chosen from a group of 60 young students, shortlisted from among the more than 33 thousand that took part in the contest. The winners in category B will have the opportunity to attend a traineeship from which will be chosen the Portuguese representatives to the International and Iberian-American Mathematics Olympiads.

This traineeship will also be attended by the category B medal winners in previous years and the gold medal winners in category A who are secondary education students. This traineeship will take place in Coimbra, during weekends and holidays. In 2008 Portugal won two bronze medals in the international Olympiads, and three bronze medals and one honourable mention in the Iberian-American Olympiads. In 2009 these contests will be held respectively in Germany and in Mexico.

### The winners

