



The International Day of Mathematics (IDM) is a worldwide celebration of mathematics. Each year on March 14 all countries will be invited to participate through activities for both students and the general public in schools, museums, libraries and other spaces.

March 14 is already celebrated in many countries as Pi Day because that date is written as 3/14 in some countries and the mathematical constant Pi is approximately 3.14.

The International Day of Mathematics project, led by the International Mathematical Union, has the support of numerous international and regional organizations all over the world. It's on the agenda of the 40th session of the General Conference of the UNESCO in November 2019 and if adopted it will have its first official celebration on March 14, 2020.

From September 2019 the official IDM website (www.idm314.org) will provide free materials, projects, ideas and software for use in classrooms, large events or small activities for the general public. It will also feature a map of worldwide events and gatherings to help visitors find local initiatives or announce their own. Everything will be offered in multiple languages and under open licenses.

GOALS OF THE IDM

The International Day of Mathematics (IDM) is the opportunity to explain and celebrate the essential role that mathematics and mathematics education play in breakthroughs in science and technology, improving the quality of life, empowering women and girls, and contributing to the achievement of the Sustainable Development Goals of the 2030 Agenda (SDG1-17) of the United Nations.

The major goals of an International Day of Mathematics, with expected benefits for students, for teachers, for women and girls and for society at large are to:

1. Improve understanding among the general public, decision makers and in schools, of the importance of mathematics in education;
2. Contribute to capacity building in mathematical and scientific education, with special focus on girls and children from developing countries (SDG4);
3. Achieve gender equality and empower women and girls in mathematics (SDG5);
4. Improve understanding among the general public, with decision makers and in schools of the importance of mathematics as a tool for developments which lead to more prosperous economy circumstances (SDG9);
5. Emphasize the importance of basic research in mathematical sciences as the seed to breakthroughs in technology and the management of society (SDG8);
6. Highlight the role of mathematics in the organization of modern society, including economic, financial, health and transport systems, telecommunications in the quest for human well-being, etc. (SDG3);
7. Raise awareness of the role of mathematics in fighting disasters, epidemics, emerging diseases, invasive species (SDG11);
8. Highlight the role of mathematics in moving to a circular economy of sustainability compatible with preservation of biodiversity (SDG14 and 15);
9. Equip the general public and young people with tools for understanding the planetary challenges and the capacity to respond as knowledgeable citizens;
10. Increase international networking and collaborations in public awareness of mathematics;
11. Increase the access to information, providing a simple way to give citizens a choice in all aspects of their daily life.

A YEARLY THEME

Every year we'll announce a new theme to flavor the celebration, spark new ideas and bring light to connections between mathematics and all types of concepts.

The theme for 2020 is **Mathematics is Everywhere.**

Mathematics is everywhere in science and technology:

- Search engines index the internet through extremely complex mathematical models.
- Medical imaging devices like computed tomography scan (CT scan) or magnetic resonance imaging (MRI) builds images out of numerical data through mathematical algorithms.
- AI and machine learning are now transforming the world.
- The decoding of the human genome is a triumph of mathematics, statistics and computer science.
- Mathematics gave us the first photo of a black hole and enables us to travel through the solar system.

Mathematics is everywhere in the organization of cities, society and government:

- Mathematics is used to optimize transport and communication networks.
- Mathematics helps understanding and controlling the spread of epidemics.
- Mathematics allows efficient planning and managing of health, economic and social systems.
- Mathematics helps designing electoral systems that better represent the people's will.
- Cryptography for secure communication relies on number theory.

Mathematics is essential to meet the UN Sustainable Development Goals:

- Mathematics is a tool for development.
- Mathematics allows modeling the global changes and their consequences on biodiversity.
- Mathematics allows planning the move to a sustainable use of the world resources.
- Mathematics is a tool for girls and women to a better future.
- Mathematics allows every citizen to understand the planetary challenges.
- "Education is the most powerful weapon which you can use to change the world." (Nelson Mandela, June 1990) and mathematics is an essential part of it.

Mathematics is everywhere in everyday human activities:

- Mathematics is present in art and music.
- Mathematics allows strategic playing in games.
- Mathematics allows budgeting.
- Mathematics help us find our way in the world through navigation based on stars, the Sun and GPS satellites.
- Precise weather forecasting comes from an improvement of atmospheric models and more powerful algorithms.

SUPPORT FOR THE INTERNATIONAL DAY OF MATHEMATICS

The International Day of Mathematics is supported by the following international and regional organizations:

- The International Council of Industrial and Applied Mathematics (ICIAM),
- The Committee for Women in Mathematics of IMU (CWM),
- The International Commission of Mathematical Instruction (ICMI),
- The African Mathematical Union (AMU),
- The European Mathematical Society (EMS),
- The Mathematical Council of the Americas (MCA)
- The Unión Matemática de América Latina y el Caribe (UMALCA),
- The Southeast Asian Mathematical Society (SEAMS)
- The Southern Africa Mathematical Sciences Association (SAMSA)

- The International Centre for Theoretical Physics (ICTP)
- The Centre international de mathématiques pures et appliquées (CIMPA)
- The Organization for Women in Science for the Developing World (OWSD)
- The African Women in Mathematics Association (AWMA)
- The African Mathematical Union Commission of African Women in Mathematics (AMU-CAWM)
- The European Women in Mathematics (EWM)