
Who is this wathematician ?

S. Parthasarathy
drpartha@gmail.com

Ref: mathpeople-w.tex
Version: 20220225a

The ‘w’ in the title is not a typo. It is based on a definition made earlier by this same author [1].

Who says women are weak in mathematics ? Have we been fair to the fairer sex ? Here is your opportunity to find out about woman mathematicians. You will find below, short clues about some famous woman mathematicians (wathematician), chosen at random.

The Challenge :: Answer as many questions as you can, or explore and discover the answers yourself.

You can also ask for the solutions from drpartha@gmail.com

Who is this wathematician ?

1. This German mathematician made important contributions to abstract algebra and theoretical physics. As one of the leading mathematicians of her time, she developed the theories of rings, fields, and algebras. She had to work without pay for seven years in a famous German mathematics institution, since at her time, women were largely excluded from academic positions. Although it had been well received, she later described her thesis and a number of subsequent similar papers she produced as “crap”. Who was this wathematician ?
2. This French mathematician, despite initial discouragement from her own parents and the hostile society around her, gained education on her own, from books in her father’s library. So she pored over every book on mathematics in her father’s library, even teaching herself Latin and Greek so she could read works like those of Sir Isaac Newton and Leonhard Euler. She was unable to make a career out of mathematics, but she worked independently throughout her life. At the centenary of her life, a street and a girls school were named after her. The Academy of Sciences also established a Prize in her honor. Who was this wathematician ?

3. This American mathematician did a PhD dissertation at The Johns Hopkins University 1926 (1882) United States. In spite of her exceptional talents, she spent most of her life struggling against poverty and adversity. In 1878 she applied for and won a fellowship to study mathematics . Her fellowship application did not reveal her first name, and the university had assumed that she was male. When they realised that she was in fact a woman, they withdrew their offer of a fellowship. The university later conceded, under pressure from a famous mathematician, and allowed her to take up her three-year scholarship. However her name was not allowed to be printed in circulars and basically the university denied her existence. She was a tireless campaigner for womens rights and helped set up and administer fellowships for female Professors. Her dissertation was completed in 1882, however, the school did not award her with a Ph.D until 1926. She waited 44 years to actually get her PhD, and died a mere 4 years later. Who was this wathematician ?

4. This Iranian mathematician was the first woman to earn the Fields Medal. Coming from a conservative religion, based in an equally conservative country and society, she repeatedly won the gold medal in maths Olympiads (National and International level). She worked with outstanding institutions like Clay Mathematics Institute and Princeton University and earned her Fields Medal. She died, a mere three years after her Fields Medal. Who was this wathematician ?

5. This English lady (born in Italy) survives in our memory as an inspired nurse, who cared passionately for injured and dying soldiers during the Crimean war, and then radically reformed professional nursing as a result of the horrors she witnessed. Her father, a graduate of Trinity College, Cambridge, gave her a university education at home, teaching her mathematics, Latin and Greek. Her upbringing thus nourished and stimulated her enthusiasm of mathematics. By the time she was nine years old, she was already organising data from garden fruits and vegetables in numerical tables. In her exalted circles, she met a number of Victorian literati, including the mathematician Charles Babbage. She was fascinated with numbers at an early age and at twenty wanted further tuition in mathematics. She began receiving two-hour instructions from a Cambridge-trained mathematician.

Her mathematical aptitude fuelled her predilection for statistics. In the mornings Nightingale would study material on the statistics of public health and hospitals, and eventually she accumulated a formidable

array of statistical information. Her enjoyment was so immense, she found the sight of a long column of figures "perfectly reviving". The statistical data she collected during the first seven months of the Crimean campaign" lead to the creation of the modern discipline of vital statistics and using these statistics to assess public health and welfare".

Although she is rightly acknowledged and highly venerated for her role in reforming nursing in the mid-nineteenth century, she clearly deserves more recognition than she has received for revolutionising nursing through her use of statistics.

Who was this wathematician ?

6. This Greek lady, was a philosopher, astronomer, and mathematician. She was renowned in her own lifetime as a great teacher and a wise counselor. She died a gruesome death caused by a mob of religious fanatics. Her murder shocked the empire and transformed her into a "martyr for philosophy"

Who was this wathematician ?

Useful resources

To know more about wathematicians :

- An interesting compilation of biographies of wathematicians:
<https://www.agnesscott.edu/lriddle/women/women.htm>.
- IMU has set up this [Committee for Women in Mathematics \(CWM\)](#)
- [Association for Women in Mathematics](#) includes a special page containing [profiles of women in maths](#)
- Here is [another list of women in maths](#)

Closing remarks

This article was created by the author, using L^AT_EX . The L^AT_EX source of this article can be obtained from drpartha@gmail.com. Please mention the Ref. No., and the Vers. code given at the top of this article. Your constructive suggestions and remarks are always welcome.

References

- [1] Who is a mathematician ?
<http://drpartha.org.in/publications/mathpeoplemw.pdf>
