

The influence of andrew wiles on mathematics

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Andrew Wiles is a British mathematician who was born on April 11, 1953 in Cambridge, England. He was born to mother Patricia Wiles and Father Maurice Frank Wiles, who was the Regius Professor of Divinity at England's finest, University of Oxford. Wiles was born in Cambridge due to his father working there at the time and this is the reason for him attending the King's College School and The Leys School. Wiles is married to Princeton University PHD recipient Nada Canaan Wiles and they parent three daughters by the names of Clare, Kate, and Olivia. Wiles attended school at a university level at Merton College, Oxford, and Clare College, Cambridge from 1974-1980.

Wiles had his hand in a plethora of mathematical problems like his work of the Iwasawa Theory which deals with the arithmetic of elliptic curves with multiplication. He also worked on other projects including the Birch and Swinnerton-Dyer conjectures and the Shimura-Taniyama-Weil conjecture. Possibly the biggest reason that Andrew Wiles is considered to be a famous mathematician, and definitely his most impressive accomplishment is dealing with his work in proving Fermat's last theorem. It is even said that Wiles was first exposed to Fermat's Last Theorem at a young age and it fascinated him. He began his research in the theorem shortly after, still at the age of ten. At this time, Wiles decided he wanted to prove this theorem and he devoted his life to doing just that.

The fact that some of the greatest math minds in the world had worked on that theorem with very little success. He worked on very little during the 7 years devoted to proving this theorem. The theorem states, that there does not exist positive integer solutions of $x^n + y^n = z^n$

$n+y$

$n= z$

n for $n > 2$. The theorem was developed by a 17th century mathematician named Pierre de Fermat, and though he claimed to have the solution to this problem, he never gave any proof. Wiles found a solution to this problem using elliptic curves and modular forms. Wiles didn't solve the entire problem on his own though. After his first presentation of his argument it was decided that there were very many gaps that needed to be filled in. He did this with help from fellow mathematician Richard Taylor and it was not published until 1995 when it was published in the Annals of Mathematics.

During his times working on this proof Wiles was a professor at the University of Oxford and before that held appointments at Harvard University, Massachusetts and Cambridge when he finally decided to choose Princeton in 1982. Following the publishing of his proof, Wiles was given many awards and high honors such as the Wolfskehl Prize, the Wolf Prize, the King Faisal Prize and many many other international awards. He was even given a BBC (British Broadcasting Company) documentary in February of 2014.

Wiles often spoke about how privileged he was to pursue his childhood dream as a professional career saying, " If you can tackle something in adult life that means that much to you, then it's more rewarding than anything else imaginable." He related how hard it was to finish something that he spent so much of his life researching and learning, but when it was all over he said, " my mind is at rest".

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Most people will have never heard and maybe even never will here the name of Andrew Wiles. Many people will never acknowledge the significance of his findings, but Andrew Wiles has had a huge role in expanding mathematical knowledge in society and this is why he is one of the most famous mathematicians.