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Essay based on documentary of; Fermat's Last Theorem

We watched a documentary in my English class and we had an assignment to write an essay of it, as a home work. Looking at the key-words of my notes; obsession, secrecy, fame and regret, ancient creek and suicide. I couldn't help but wonder that what on earth have we been watching, soap-opera with dramatic twists in the plot? Not exactly, we were watching a document of mathematicians who was drying to solve a mathematic theorem.

Let's go to the story.

Story was about a mathematical theorem called Fermat's Last Theorem. Pierre de Fermat claimed in 1637 to have a proof of the theorem, but it was too large to fit the margin of Arithmetica. No other proof was offered by Pierre either. Theorem is based upon Pythagoras' Theorem what was discovered already by the ancient Greeks, mathematician Pythagoras: $a2 + b2 = c2$.

The film concentrated to tell the story of Andrew Wilkes, who had an obsession of proving the conjecture of Fermat's Last Theorem, since he was a young boy.

His work with the problem started after Gerhard Frey found a link between the modularity theorem and Fermat's Last Theorem in early 80'. Before this in 50' mathematicians Goro Shimura and Yutaka Taniyama made conjecture about a link between elliptic curves and modular forms. Conjecture was later called modularity theorem. Quite sad part was that Taniyama committed a suicide and never got to know how his work was a vital part of the succession of proving the theorem. I could not but wonder that did his work driven him to it.

Wilkes started a long journey on proving the theorem. He worked for seven years. Interesting detail for me was that he never used a computer. He worked in secrecy and in total isolation, concentrating only on his work and his family. Finally in one day he thought he had solved the problem and confined a one colleague. Soon the rumours started to flow around the wold in mathematic circles.

After introducing the paper to his peers there was an error found on one part of it. Wilkes was devastated. He told in the film how it was quite different to try to solve a problem and in after claiming to solve it, trying to found a solution for the error found in it. But Wilkes did not give up and with a help from his old student, he finally solved it over a year after his first claim of solving the problem.

In the end of the film Wilkes told that the revelation of the final peace of the problem was the most important moment of his working life. The true answer to the problem was simple, elegant and beautiful.

I'm not a mathematician, but what I can understand the joy of getting completion in your work. Andrew Wilkes is now a day's called Sir Andrew Wilkes. Well deserved, I think.