Fermat's Last Theorem

Historical Perspective on a Mathematical Challenge

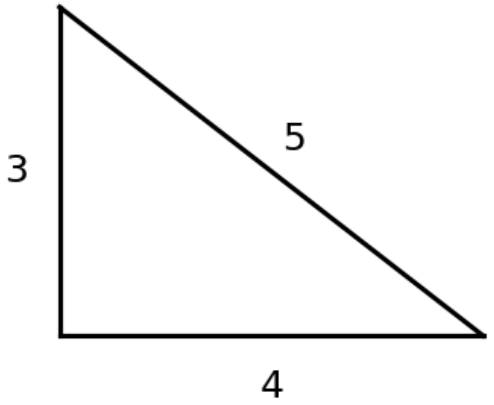
Fermat's Challenge

- Fermat claimed no positive integer solutions exist for the equation below
  - $x^{n} + y^{n} = z^{n}, n > 2$
- Mathematicians proved special cases for n = 3 and n = 4

[1] [2]

Pythagorean Case & Examples

- The case n = 2 is the Pythagorean theorem
  - a^{2} + b^{2} = c^{2}
  - 3^{2} + 4^{2} = 5^{2}
  - \frac{1}{2}
  - \alpha^{2}



[3]

Andrew Wiles & Significance

- Andrew Wiles announced a proof of the theorem in 1993
- The proof involved complex modern mathematics
- It connected number theory and geometry, inspiring further research

[4]