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Fermat's last theorem, a genetic introduction to algebraic number theory, by Harold M. Edwards, Graduate Texts in Math. Springer-Verlag, Berlin and New York, 1977, xv + 410 pp.

13 *Lectures on Fermat's last theorem*, by Paulo Ribenboim, Springer-Verlag, Berlin and New York, 1979, xvi + 302 pp.

For more than three centuries many good and many not so good mathematicians have attempted to prove Fermat's last theorem. While the collected efforts of these mathematicians have not yet led to a solution of this problem, much is now known about the problem and more importantly much new mathematics has been discovered in the process of working on the conjecture.

Fermat's last theorem can be simply stated as: Show that $x^n + y^n = z^n$ has no integral solutions with $n > 2$ and $xyz \neq 0$. It clearly sufficies to prove this result for $n = 4$ and $n = p$, an odd prime. When $n = p$, the theorem has been traditionally separated into two parts called case 1 and case 2. The first case is to show the equation has no solution with $xyz \not\equiv 0 \pmod p$ and the second is to show no solution exists with $xyz \equiv 0 \pmod p$.