



## **BERNHARD RIEMANN**

Bernhard Riemann, born to a poor family in 1826, would rise to become one of the world's prominent mathematicians in the 19th Century. The list of contributions to geometry are large, and he has a wide range of theorems bearing his name. To name just a few: Riemannian Geometry, Riemannian Surfaces and the Riemann Integral. However, he is perhaps most famous (or infamous) for his legendarily difficult Riemann Hypothesis; an extremely complex problem on the matter of the distributions of prime numbers. Largely ignored for the first 50 years following its appearance, due to few other mathematicians actually understanding his work at the time, it has quickly risen to become one of the greatest open questions in modern science, baffling and confounding even the greatest mathematicians. Although progress has been made, it has been incredibly slow. However, a prize of \$1 million has been offered from the Clay Maths Institute for a proof, and one would almost undoubtedly receive a Fields medal if under 40 (The Nobel prize of mathematics). The fallout from such a proof is hypothesized to be large: Major encryption systems are thought to be breakable with such a proof, and all that rely on them would collapse. As well as this, a proof of the hypothesis is expected to use 'new mathematics'. It would seem that, even in death, Riemann's work may still pave the way for new contributions to the field, just as he did in life.

You can find out more about Bernhard Riemann and his works [HERE](#).

Many thanks to M. R. Sexton who wrote the full online article which can be found [here](#)