

## Top Five MALE Mathematicians

### **1. Georg Riemann**



b. Sept.17, 1826 Hanover, Germany

d. July 20, 1866

#### Important Contribution :

For the little time he lived, his contributions to non-Euclidean geometry have proved enormous... Riemannian geometry is the basis for Einstein's General Theory of Relativity.

## 2. Joseph Liouville



b. Mar. 24, 1809, St. Omer, France  
d. Sept. 8, 1882

### Important Contribution :

Development of the Sturm-Liouville second order differential equation and boundary value problem. This work is the basis of so many fundamental equations needed in description of nature... Bessel Functions, Legendre Polynomials, Chebyshev polynomials, Laguerre Polynomials, Hermite Polynomials, and others.

### 3. Gottfried Wilhelm von Leibnitz



b. June 21, 1646

d. Nov. 14, 1716

Important Contribution :

Developed the fundamentals of the calculus (some consider simultaneously with Newton). This work is the cornerstone of an enormous flood of subsequent discovery in the sciences and mathematics.

#### 4. Pafnuty Chebyshev



b. May 16, 1821  
d. Dec 8, 1894

##### Important Contribution :

While significant contributions to number theory are well-noted, his work on the orthogonal polynomials bearing his name, are very Important. Chebyshev polynomials are rooted in many fields, not the least of which are in the extrapolation of iterative numerical solutions to expedite numerical convergence to the solution.

## 5. Aleksandr Mikhailovich Liapounov



b. May 25, 1857, Yaroslavl' Russia  
d. Nov. 3, 1918

Important Contribution :

Many important analyses of nonlinear systems... especially stability of solutions of nonlinear differential equations. Many natural phenomena display nonlinear processes.