Newton’s Binomial:

$$\left(x+a\right)^{n}=\sum\_{k=0}^{n}\left(\genfrac{}{}{0pt}{}{n}{k}\right)x^{k}a^{n-k}$$

Quadratic Equation’s Root:

$$x=\frac{-b\pm \sqrt{b^{2}-4ac}}{2a}$$

Sum Factorization:

$$\left(1+x\right)^{n}=1+\frac{nx}{1!}+\frac{n\left(n-1\right)x^{2}}{2!}+…$$

Taylor series:

$$e^{x}=1+\frac{x}{1!}+\frac{x^{2}}{2!}+\frac{x^{3}}{3!}+…, -\infty <x<\infty $$

Fourier series:

$$f\left(x\right)=a\_{0}+\sum\_{n=1}^{\infty }\left(a\_{n}\cos(\frac{nπx}{L})+b\_{n}\sin(\frac{nπx}{L})\right)$$

Sum-to-product identities:

$$\sin(α)\pm \sin(β)=2\sin(\frac{1}{2}\left(α\pm β\right))\cos(\frac{1}{2}\left(α\mp β\right))$$

Navier-Stokes equation (incompressible flow):

$$ρ\left(\frac{∂v}{∂t}\right)+v∙∇v=-∇p+μ∇^{2}v+f$$

Ostrogradsky–Gauss theorem:

$$∭\_{V}^{}div F dV=∯\_{S}^{}F∙n dS$$

End of test.