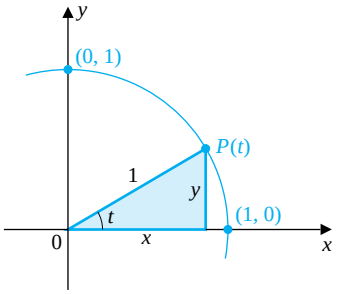


Trigonometry

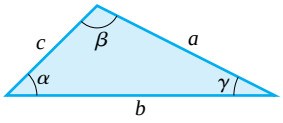
$$\begin{aligned} \sin t &= y & \cos t &= x \\ \tan t &= \frac{\sin t}{\cos t} & \cot t &= \frac{\cos t}{\sin t} \\ \sec t &= \frac{1}{\cos t} & \csc t &= \frac{1}{\sin t} \end{aligned}$$

$$(\sin t)^2 + (\cos t)^2 = 1$$

$$\sin(t_1 \pm t_2) = \sin t_1 \cos t_2 \pm \cos t_1 \sin t_2$$

$$\cos(t_1 \pm t_2) = \cos t_1 \cos t_2 \mp \sin t_1 \sin t_2$$

$$\begin{aligned} \sin t_1 \sin t_2 &= \frac{1}{2}[\cos(t_1 - t_2) - \cos(t_1 + t_2)] \\ \cos t_1 \cos t_2 &= \frac{1}{2}[\cos(t_1 - t_2) + \cos(t_1 + t_2)] \\ \sin t_1 \cos t_2 &= \frac{1}{2}[\sin(t_1 - t_2) + \sin(t_1 + t_2)] \end{aligned}$$



$$\text{Law of Sines:} \quad \frac{\sin\alpha}{\alpha} = \frac{\sin\beta}{\beta} = \frac{\sin\gamma}{\gamma}$$

$$\text{Law of Cosines:} \quad c^2 = a^2 + b^2 - 2ab\cos\gamma$$

Common Series

$$\sin t = \sum_{n=0}^{\infty} \frac{(-1)^n t^{2n+1}}{(2n+1)!} = t - \frac{t^3}{3!} + \frac{t^5}{5!} - \cdots$$

$$\cos t = \sum_{n=0}^{\infty} \frac{(-1)^n t^{2n}}{(2n)!} = 1 - \frac{t^2}{2!} + \frac{t^4}{4!} - \cdots$$

$$e^t = \sum_{n=0}^{\infty} \frac{t^n}{n!} = 1 + t + \frac{t^2}{2!} + \frac{t^3}{3!} + \cdots$$

$$\frac{1}{1-t} = \sum_{n=0}^{\infty} t^n = 1 + t + t^2 + \cdots, \qquad |t| < 1$$

The Greek Alphabet

Alpha	A	α	Eta	H	η	Nu	N	ν	Tau	T	τ
Beta	B	β	Theta	Θ	θ	Xi	Ξ	ξ	Upsilon	Υ	υ
Gamma	Γ	γ	Iota	I	ι	Omicron	O	o	Phi	Φ	ϕ
Delta	Δ	δ	Kappa	K	κ	Pi	Π	π	Chi	X	χ
Epsilon	E	ϵ	Lambda	Λ	λ	Rho	P	ρ	Psi	Ψ	ψ
Zeta	Z	ζ	Mu	M	μ	Sigma	Σ	σ	Omega	Ω	ω