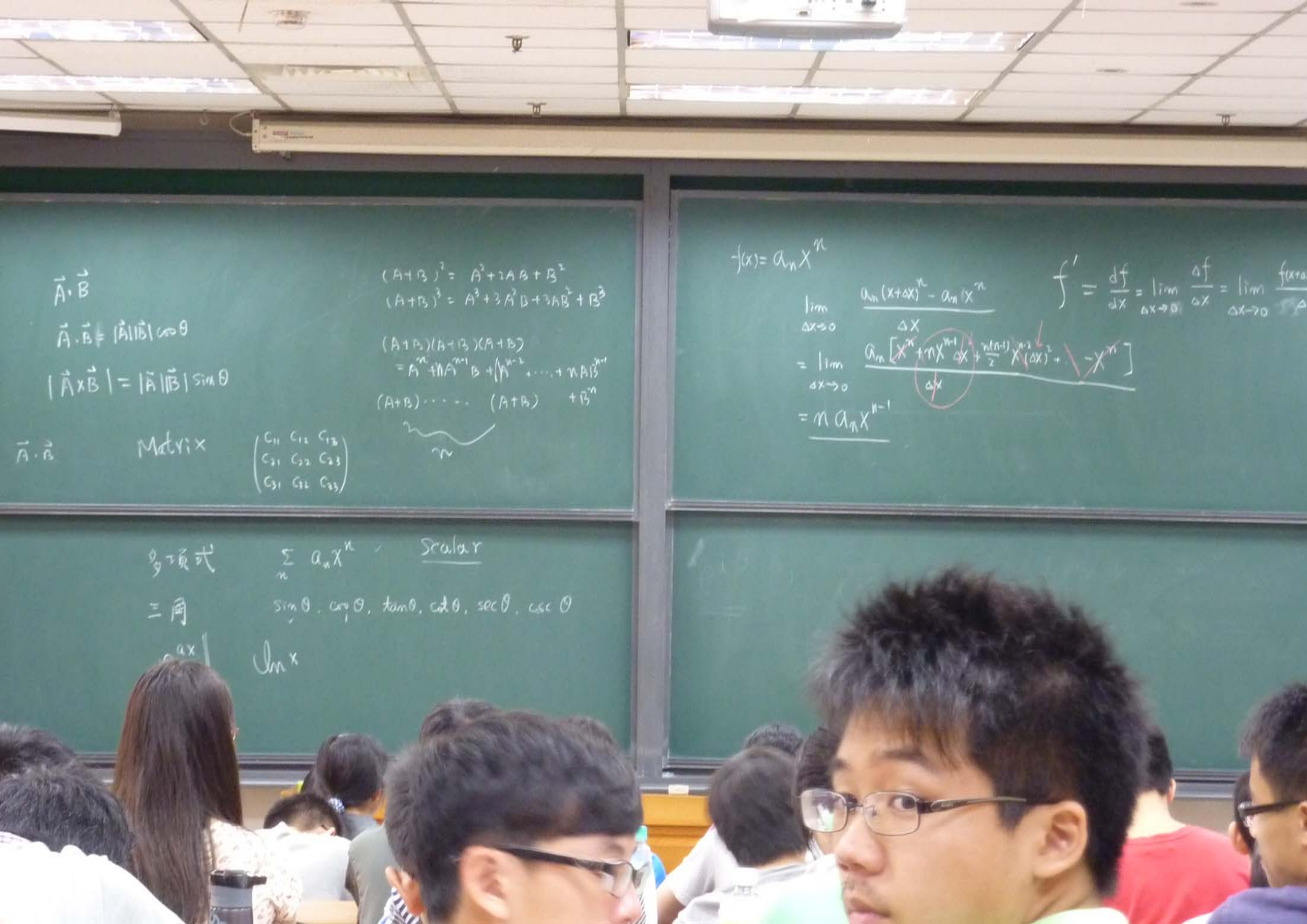
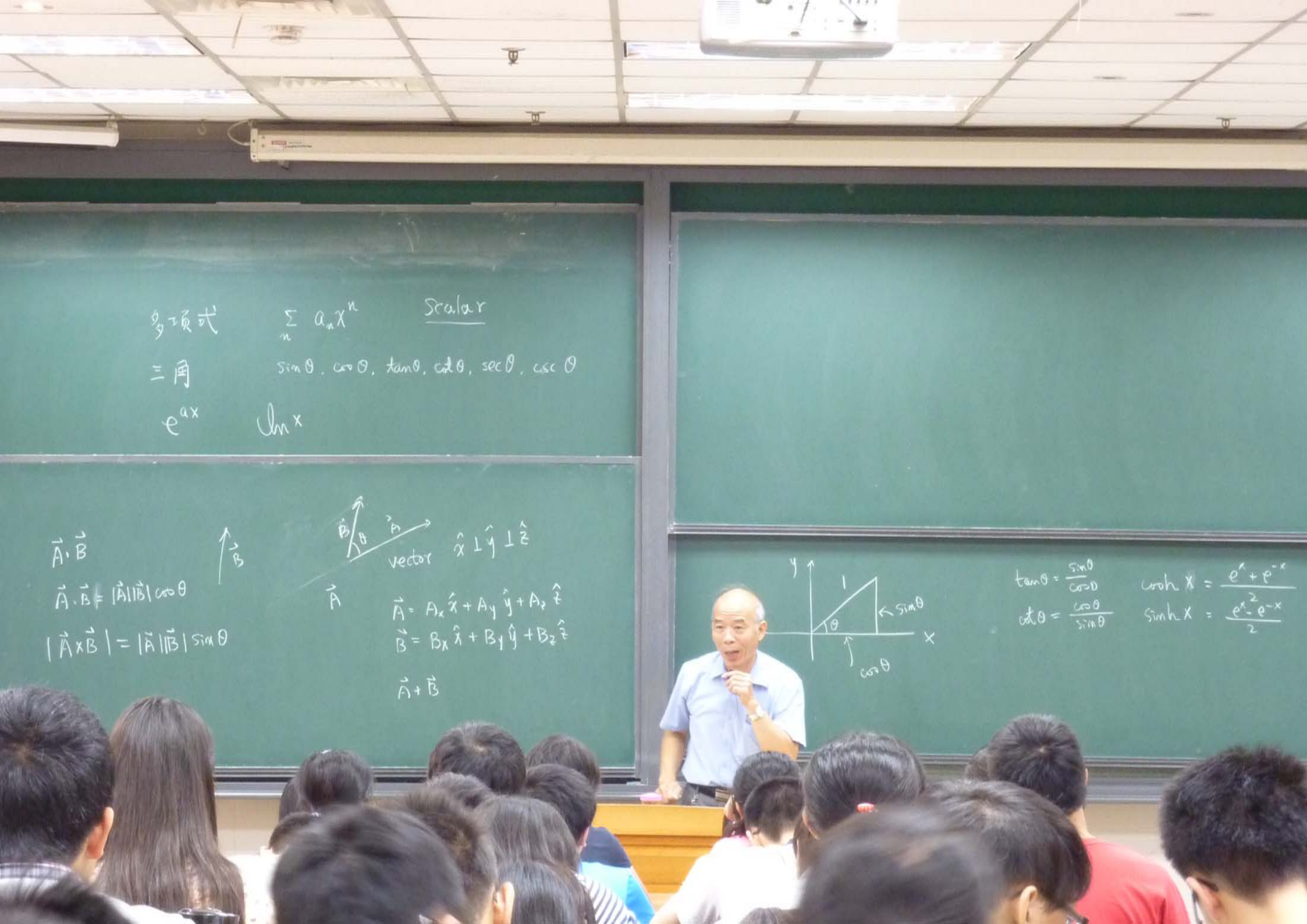

$\vec{A}\cdot\vec{B}$
$\vec{A}\cdot\vec{B} = |\vec{A}||\vec{B}|\cos\theta$
$|\vec{A}\times\vec{B}| = |\vec{A}||\vec{B}|\sin\theta$
$\vec{A}\cdot\vec{B}$ Matrix $\begin{pmatrix} c_{11} & c_{12} & c_{13} \\ c_{21} & c_{22} & c_{23} \\ c_{31} & c_{32} & c_{33} \end{pmatrix}$
$(A+B)^2 = A^2+2AB+B^2$
$(A+B)^3 = A^3+3A^2B+3AB^2+B^3$
$(A+B)(A+B)(A+B)$
$= A^n + nA^{n-1}B + \frac{n(n-1)}{2}A^{n-2}B^2 + \cdots + nAB^{n-1} + B^n$
$(A+B)\cdots\cdots(A+B)$
n
$f(x) = a_n x^n$
$\lim_{\Delta x\to 0} \frac{a_n(x+\Delta x)^n - a_n x^n}{\Delta x}$
$= \lim_{\Delta x\to 0} \frac{a_n\left[x^n + nx^{n-1}\Delta x + \frac{n(n-1)}{2}x^{n-2}(\Delta x)^2 + \cdots - x^n\right]}{\Delta x}$
$= n a_n x^{n-1}$
$f' = \frac{df}{dx} = \lim_{\Delta x\to 0}\frac{\Delta f}{\Delta x} = \lim_{\Delta x\to 0}\frac{f(x+\Delta x)-f(x)}{\Delta x}$
多項式 $\sum_n a_n x^n$ Scalar
三角 $\sin\theta$, $\cos\theta$, $\tan\theta$, $\cot\theta$, $\sec\theta$, $\csc\theta$
$\ln x$


多項式
$\sum_n a_n x^n$
Scalar
三角
$\sin\theta$, $\cos\theta$, $\tan\theta$, $\cot\theta$, $\sec\theta$, $\csc\theta$
e^{ax}
$\ln x$
$\vec{A}, \vec{B}$
$\vec{A}\cdot\vec{B} = |\vec{A}||\vec{B}|\cos\theta$
$|\vec{A}\times\vec{B}| = |\vec{A}||\vec{B}|\sin\theta$
vector
$\hat{x} \perp \hat{y} \perp \hat{z}$
$\vec{A} = A_x\hat{x} + A_y\hat{y} + A_z\hat{z}$
$\vec{B} = B_x\hat{x} + B_y\hat{y} + B_z\hat{z}$
$\vec{A} + \vec{B}$
$\tan\theta = \frac{\sin\theta}{\cos\theta}$
$\cot\theta = \frac{\cos\theta}{\sin\theta}$
$\cosh x = \frac{e^x + e^{-x}}{2}$
$\sinh x = \frac{e^x - e^{-x}}{2}$