Put your math in a pair of dollar signs, in the following ways:

LaTeX expression	meaning	example	meaning
`$a_i$`	a_i	`$a_{ij},A_{i,j,k}$`	$a_{ij}, A_{i,j,k}$
`$a^b$`	a^b	`$(ab)^{cd}\neq ab^cd$`	$(ab)^{cd} \neq ab^cd$
`${a\over b}$`	$\frac{a}{b}$	`${dy\over dx}\neq dy\over dx$`	$\frac{\frac{dy}{dx}\neq A}{B}$ (nonsense)
`$a/b$`	a/b	`$(ab)/(cd)$`	$(ab)/(cd)$
`$\lim$`	lim	`$\lim_{x\to a^+}{1\over x-a}=+\infty$`	$\lim_{x\to a^+} \frac{1}{x-a} = +\infty$
`$\int$`	$\int$	`$\int_a^b f(x) dx$`	$\int_a^b f(x)\,dx$
`$\sum$`	$\sum$	`$\sum_{i=1}^{100} a_i$`	$\sum_{i=1}^{100} a_i$

LaTeX commands all begin with \ (backslash). Frequently used notations and Greek letters :

```
$
\forall,\exists,\neq,\times,\div,a\cdot b,f\circ g,
\in,\le,\ge,\subset,\subsetneq,\supset,\supsetneq,\cap,\cup,
\to\pm\infty,\sin,\cos,\tan,\cot,\log_{10}a,\ln x,\sqrt{x},\sqrt[n]{x},\cdots
\alpha,\beta,\gamma,\Gamma,\delta,\Delta,\epsilon,\varepsilon,\phi,\Phi,\psi,\Psi,
\lambda,\Lambda,\omega,\Omega,\pi,\Pi,\rho,\sigma,\Sigma,\theta,\Theta,\tau,\cdots
$
```

All these stand for

$$\forall, \exists, \neq, \times, \div, a \cdot b, f \circ g, \in,$$
$$\leq, \geq, \subset, \subseteq, \subsetneq, \supset, \supseteq, \supsetneq, \cap, \cup,$$
$$\to \pm\infty, \sin, \cos, \tan, \cot, \log_{10} a, \ln x, \sqrt{x}, \sqrt[n]{x}, \cdots$$
$$\alpha, \beta, \gamma, \Gamma, \delta, \Delta, \epsilon, \varepsilon, \phi, \Phi, \psi, \Psi,$$
$$\lambda, \Lambda, \omega, \Omega, \pi, \Pi, \rho, \sigma, \Sigma, \theta, \Theta, \tau, \cdots$$

respectively. Also they can be mixed up in your text, as long as your math is enclosed in a `$$` pair. For instance, your email contains:

```
May I ask you how to compute and ${d\over dx}[\sin(\cos(\tan x))]$
and $\int_3^4 xe^{2x} dx$? You kept saying natural domain, induced
range, $\Gamma_f,(f\circ g)(x)$ in class. Are these contained in our textbook?
```

It will be read as:

May I ask you how to compute and $\frac{d}{dx}[\sin(\cos(\tan x))]$
and $\int_3^4 xe^{2x}dx$*? You kept saying natural domain, induced*
range, $\Gamma_f, (f \circ g)(x)$ *in class. Are these contained in our textbook?*