For subscript use underscore
$A_1 \;\; A_i \;\; A_{i,j}$
For power, superscript use hat
$x^2 \;\; x^{p+q} \;\; x^{y^z}$
$\binom{n}{k} = \frac{n!}{k!(n-k!)}$
$z = \sqrt{x^2 + y^2}$

$$\int_{i=0}^{\infty} \frac{1}{(x+1)^2} dx$$

$\sum_{j=1}^{10} A_j$