# Formula Sheet EE2M11

MaybE_Tree

2022-09-07

Triangle Inequality

$$\begin{cases} |z_1 \pm z_2| \leq |z_1| + |z_2| \\ |z_1 \pm z_2| \geq |z_1| - |z_2| \end{cases}$$

Limits to Infinity

$$\begin{cases} \lim\limits_{z \to z_0} f(z) = \infty \iff \lim\limits_{z \to z_0} \dfrac{1}{f(z)} = 0 \\ \lim\limits_{z \to \infty} f(z) = L \iff \lim\limits_{z \to 0} f\left(\dfrac{1}{z}\right) = L \end{cases}$$

*L must be finite, maybe??*

Cauchy-Riemann

| CR1 | u | v |
|---|---|---|
| x | $\dfrac{du}{dx}$ | $\dfrac{dv}{dx}$ |
| y | $\dfrac{du}{dy}$ | $\dfrac{dv}{dy}$ |