

Dúvidas:

4)

$$\int \frac{dx}{L+x^2} = \arctan x$$

$$2) \lim_{n \rightarrow \infty} \int_{1/\sqrt{n}}^{\infty} \frac{dx}{1+x^2} = \lim_{n \rightarrow \infty} \left(\frac{\pi}{2} - \arctan \sqrt{n} \right) = 0$$