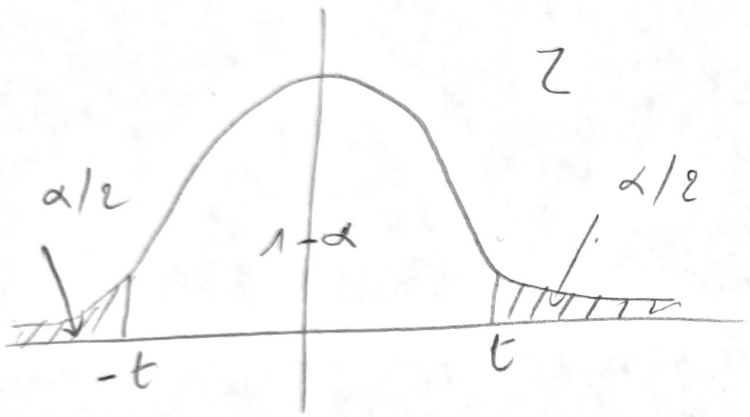

$I / \mathbb{P}(m \in I) = 1 - \alpha$

$\mathbb{P}(-t < z < t) = 1 - \alpha$

$\mathbb{P}\left(\overline{X_m} - \frac{t S_n}{\sqrt{n-1}} < m < \overline{X_m} + \frac{t S_n}{\sqrt{n-1}}\right) = 1 - \alpha$