$$f(x) = 4x - 3$$

$$\lim_{x \to 2} 4x - 3 = 4 \cdot 2 - 3 = 5$$

Queremos

$\forall\, \varepsilon > 0$

$0 < |x - 2| < \delta \Rightarrow |4x - 3 - 5| < \varepsilon$

$|4x - 3 - 5| = |4x - 8| = 4|x - 2| < \varepsilon$

$\Leftrightarrow |x - 2| < \frac{\varepsilon}{4}$

$\delta = \frac{\varepsilon}{4}$ $\quad |x - 2| < \delta \Rightarrow |x - 2| < \frac{\varepsilon}{4}$