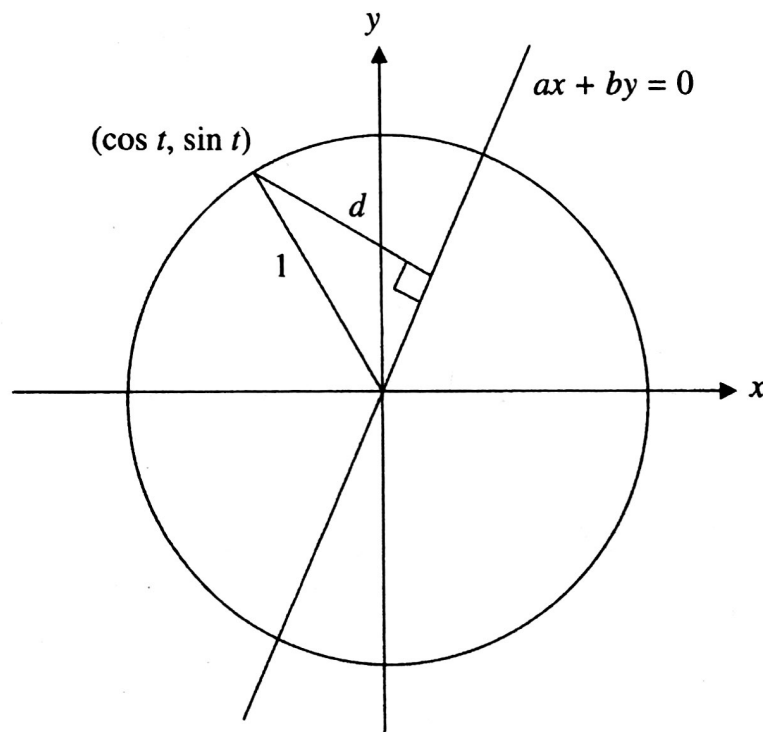


Thm. $-\sqrt{a^2 + b^2} \leq a \cos t + b \sin t \leq \sqrt{a^2 + b^2}$



$$d \leq 1 \Rightarrow |a \cos t + b \sin t| / \sqrt{a^2 + b^2} \leq 1$$
$$-\sqrt{a^2 + b^2} \leq a \cos t + b \sin t \leq \sqrt{a^2 + b^2}$$