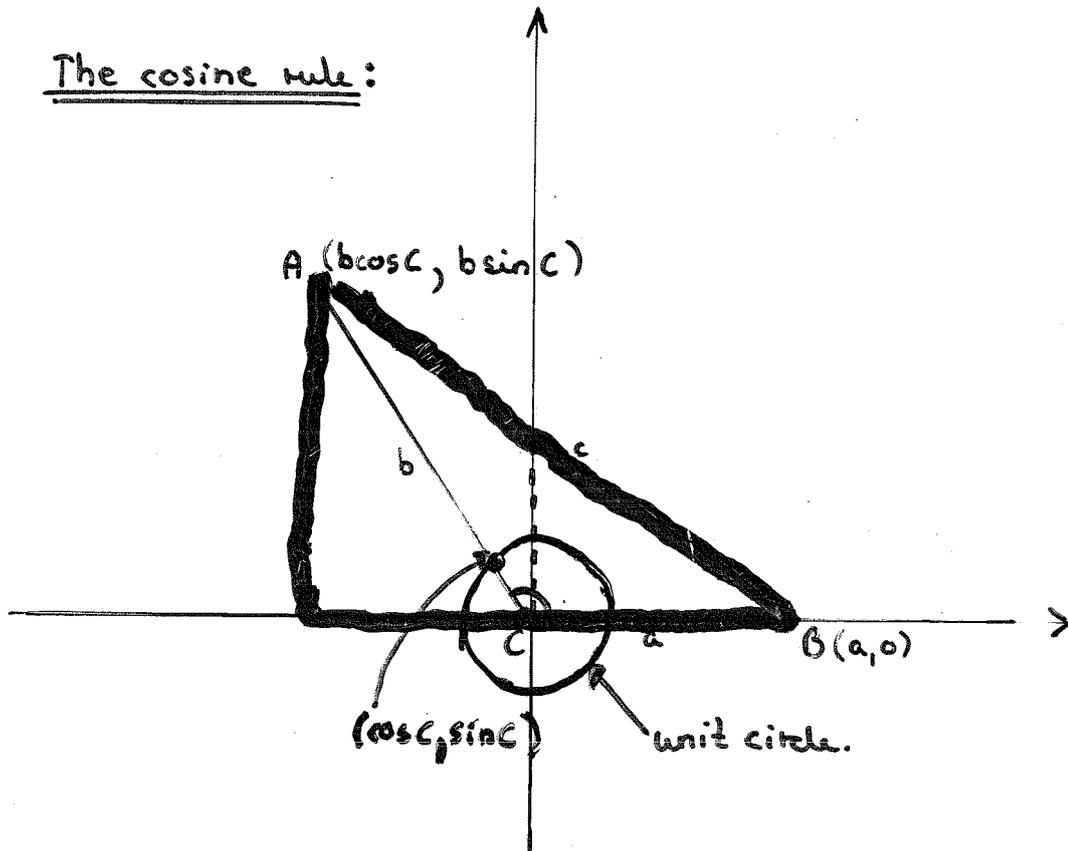


The cosine rule:



$$\begin{aligned}c^2 &= (b \cos C - a)^2 + (b \sin C)^2 \\&= b^2 \cos^2 C - 2ab \cos C + a^2 + b^2 \sin^2 C \\&= b^2 (\cos^2 C + \sin^2 C) + a^2 - 2ab \cos C \\&= b^2 + a^2 - 2ab \cos C\end{aligned}$$