CPLXROOT.8xp
By: the class

This program calculates the “n” roots of complex numbers. It will ask the user to input *A*, *B*, and *N* from the form $(a+bi)^{\frac{1}{n}}$. It will then calculate the distance, R, of the point from the origin on the complex plane using $\sqrt{A^2+B^2}$. It will then calculate $\tan^{-1}(B/A)$ and store that in θ. It then displays the original number you entered and then calculates the roots using a “for” loop to increment k starting from zero until $k=n-1$ and use the formula $R^{\frac{1}{n}}(\cos(\frac{\theta+360K}{n})+\sin(\frac{\theta+360K}{n}))$ to calculate the roots and then display these roots.