Q.1: Solve $\cos(z) = i$.

Q.2: Find fourth roots of $1 + i$. Write answer in sine and cosine form.

Q.3: Find radius of convergence and open disk of convergence for the series $\sum_{n=0}^{\infty} \frac{(-1)^n 2^n}{n+1} (z - 1 + 2i)^n$. 