
4321

1. Find the spacing between the first five zeroes of $\sin(4u)$.
2. Find the spacing between the first five zeroes of the order-0 Bessel function of the first type, $J_0(u)$.
3. Find the spacing between the first five zeroes of the order-2 Bessel function of the second type, $N_2(u)$.
4. Expand $J_0(u)$ in a Fourier series for $0 \leq u \leq 5$.

7305

1. A full circular cylinder of radius a and length L has its bottom circular plate ($z = 0$) and curved lateral area ($s = a$) grounded while a constant voltage V is maintained on the top plate ($z = L$). Find the voltage function that satisfies Laplace's equation inside the cylinder and also satisfies the boundary conditions.

Bonus: Solve as much of the other class' assignment as you can.