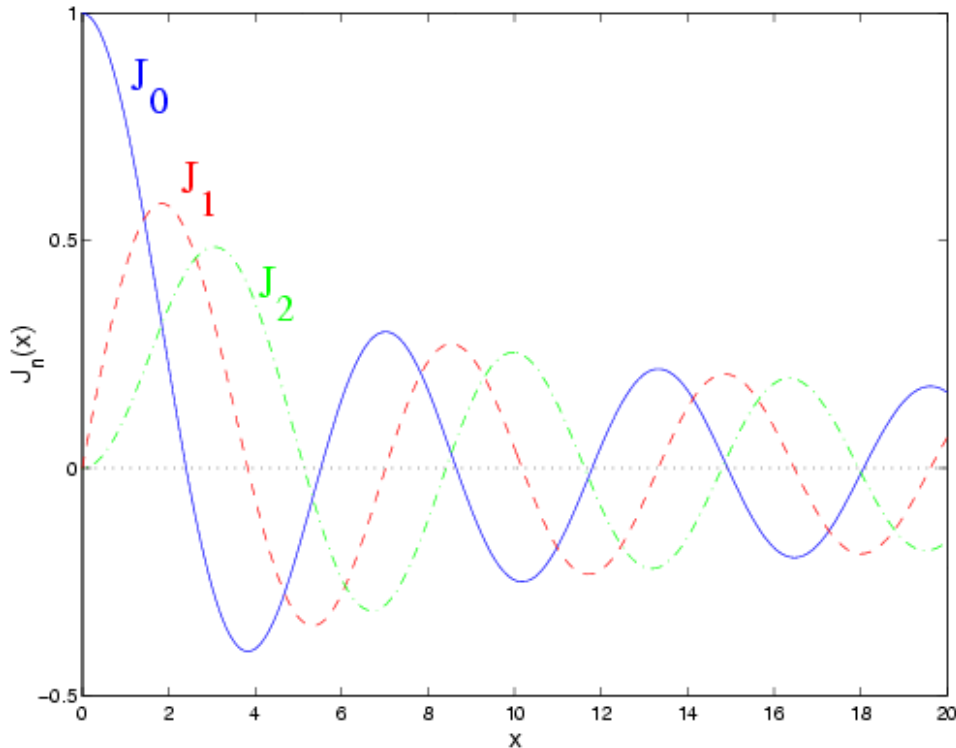


A plot of $J_n(x)$ vs. x for the three lowest-order Bessel functions ($n = 0, 1$ & 2) is shown in the figure below.



The first few zeros of the first order Bessel function, $J_1(x)$ occur at $x = 0.0000, 3.8317, 7.0156, 10.1735, 13.3237, 16.4706, 19.6159, \dots$ These are obviously not simply-related to one another – numerical computational and/or graphical techniques are usually used to determine them...

A plot of normalized intensity $J_1^2(r)/r^2$ vs. r is shown in the figure below.

