

PH422: Static Fields

Quiz 1

The “quiz” on Monday, January 6, will be something similar to:

1. Be able to give the first four nonzero terms of the power series for $\sin z$, $\cos z$, e^z , $\ln(1+z)$, and $(1+z)^p$.
2. Use the formula for the coefficients of a power series:

$$f(z) = \sum_{n=0}^{\infty} \frac{1}{n!} \frac{d^n f(a)}{dz^n} (z-a)^n$$

to find the first three non-zero terms of a series expansion for $\sin kx$ around $z = 2$.