

MA/PHY506 Fall 2017

Problem Set 5

DUE: 11 October 2017

1. Use the integral formula for y_2 to find a second independent solution of $y'' + \omega_0^2 y = 0$, for $\omega_0 \neq 0$. Take $y_1(x) = \cos(\omega_0 x)$.
2. Arfken, Chapter 7, page 373: problem 7.6.22.
3. Arfken, Chapter 7, page 377: problems 7.7.2, 7.7.4.
4. Arfken, Chapter 7, page 379: problem 7.8.1.