Physics 301-001: Assignments for March 11th

Homework #6: Series Solutions I

Due See Moodle

Reading Assignment:

During this week, you should be reading the following (in order):

1) Boas, ch.12

Homework Assignment:

Late homework will ***not*** be accepted. Please write your answers to these questions on a separate sheet of paper with **your name and this class's section number, 001.** You are encouraged to work with your classmates on these assignments, but please **write the names of all your study group members** on your homework.

Practice Problems:

We have listed problems from the textbook that involve related skills and concepts; answers to these problems may be found in the back of the text. You should use these extra problems for practice and review, but they do *not* need to be turned in.

Selected Practice Problems from Boas: 12.1.1, 12.1.3, 12.1.5, 12.1.7, 12.2.2

1. In book problems (24 pts)

12.1.2 12.1.6 12.1.8 12.2.3

2. Matlab (6 pts): In Matlab (or Excel), make plots of the power series of the following functions including up to the 3rd, 10th, 20th terms from the range 0 to 1:

$$f(x) = \exp(-x)$$

$$g(x) = \sin(x)$$