Physics 332 – Problem Set # 1

(due Wednesday, April 19)

1. Peskin and Schroeder, Problem 10.2.

2. Peskin and Schroeder, Problem 10.3.

3. Peskin and Schroeder, Problem 10.4. The correct answer to this problem should be:

$$i\mathcal{M} \sim -i\lambda - i\frac{\lambda^2}{(4\pi)^2}\log s - i\frac{3}{2}\frac{\lambda^3}{(4\pi)^4}\log^2 s + \cdots \tag{1}$$

   [Thanks to Dean Lee.]