Physics 116A

Home Work # 8
Posted on March 1, 2018
Due in Class March 8, 2018

§**Required Problems: Each problem has 10 points**
E.g. MB 19.16 means problem #16 on page 19 in the book by M. Boas, 3rd Edition.

1. MB 147.2

2. MB 147.4

3. MB 147.5

4. MB 159.7

5. MB 159.18

6. MB 159.19

7. MB 160.42

8. For the 2×2 matrix of Problem MB 159.12, calculate all the left and right eigenvectors

9. Consider the matrix
$$M = \begin{bmatrix} 2 & 1 + \epsilon \\ 1 - \epsilon & 3 \end{bmatrix} \tag{1}$$

   Calculate its right and left eigenvectors for an arbitrary ϵ. Show that these coincide when $\epsilon \to 0$. Find the value of ϵ below which the eigenvalues become real.

§**Recommended Supplementary problems: No scores**

S(1) MB 161.(51,52,54)

S(2) MB 161.(47,48)