

# Physics 325: Problem Set #7

Department of Physics and Astronomy  
Sonoma State University

Due Friday, November 2, 2007, 9:00 am (in class)

- Text: Riley, Hobson, and Bence, *Mathematical Methods for Physics and Engineering*, 3<sup>rd</sup> Edition;
- Please read 7.1-7.6, and 7.9.

1. Page 235, Problem 7.2.

2. Page 235, Problem 7.4.

Note: To find the direction cosines, you need to know the angles  $\alpha$ ,  $\beta$ , and  $\gamma$  between the vector and the  $x$ -,  $y$ -, and  $z$ -axes, respectively.

3. Page 235, Problem 7.8.

4. Page 235, Problem 7.21(a), (b).

5. Page 239, Problem 7.25.