

SUPPLEMENTS TO MATHEMATICAL METHODS IN SCIENCE AND ENGINEERING

Selçuk Bayın

<http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470041420.html>

PROLOGUE

In this companion site for our book, *Mathematical Methods in Science and Engineering* (Wiley, 2006), we present solutions or hints to selected problems. These problems are not always chosen from the book. When they are directly taken from the book, or when they are related to a problem in the book, the corresponding problem number is given. Each problem is stated completely so that the interested reader can attempt to reach the solution before consulting the answers or the hints. It is assumed that the reader is familiar with the contents of the corresponding chapter in the book. Rather than presenting the complete solutions, we usually prefer to discuss the method and guide the reader through the crucial intermediate steps. In this regard, even with the help given, these problems remain challenging exercises, which can generally be assigned by instructors in the given format. In addition to the above mentioned problems, we occasionally include additional exercises. We also have quite a few extra sections that extend the discussions in the book along with active links to sites of interest. The equations in these sections are numbered as (0.xx). We refer to the equations from the book with their chapter and equation numbers. For the readers who need to refresh their basic mathematical skills we recommend *Essentials of Mathematical Methods in Science and Engineering* (Bayın, Wiley, 2008), where more derivations and additional discussions can be found (<http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470343796.html>).

Selçuk Bayın (Nov, 2009)

Chapters with supplements

1	2 +	3 +	4 +	5 +	6 +	7 +	8 +
9 +	10 + ^{*(Nov)}	11 +	12 +	13 +	14 + ^{*\mathcal{R}_1(Aug)}	15 +	16 +
17 +	18 +	19 +	20 + ^{*(Aug)}				

+ : Completed -: In progress \mathcal{R}_n : n^{th} revision * Recent

Note: In the revised versions we list the changes made at the end of each supplement.