Preface

How does this elementary textbook on differential equations differ from all the other elementary textbooks on differential equations?

- It's shorter—it doesn't attempt to throw in everything in one package.
- It's longer—it spends more time on the topics it does cover.
- In particular, it spends much more time explaining physical examples in detail.
- To carry this idea further, it assumes an interest in physics. It is intended only for students in engineering or possibly in one of the physical sciences. It is of little or no interest for students in biology, who might very well be interested in differential equations—just not in the particular choice of applications presented here.
- On the other side of the same coin, it avoids questions of mathematical rigour completely. It is not intended for students of mathematics.
- It tries harder to take computers into account. A course in which these notes are used ought to be accompanied by computer laboratory sessions in which solutions to differential equations are presented graphically and interactively.
- It is plainer fare. Although it is possible to give some idea of the complicated behaviour of dynamical systems in an elementary way, this book does not do it.