


INTERDISCIPLINARY LIVELY APPLICATIONS PROJECT
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CONTENTS

1. Setting the Scene
2. Your Job
3. Part 1: Numerical and
Graphical Analyses
4. Part 2: Let's Get Explicit
5. Part 3: What Do You
Recommend?
References
Sample Solution
Notes for the Instructor
About the Authors

Getting the Salt Out

MATHEMATICS CLASSIFICATIONS:

Calculus, Differential Equations

DISCIPLINARY CLASSIFICATIONS:

Chemistry, Engineering

PREREQUISITE SKILLS:

1. Modeling with an ordinary differential equation with initial condition.
2. Sketching a solution to a differential equation on its direction field.
3. Solving an ordinary differential equation by separation of variables.

PHYSICAL CONCEPTS EXAMINED:

Osmotic pressure, permeability, desalination.

COMPUTING REQUIREMENT:

A program to plot direction fields. (A Mathematica program is available from the authors.)

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