

Unit 2 Modeling Motion

Lesson 1 *Modeling Linear Motion* 80

INVESTIGATIONS

- 1 Navigation: What Direction and How Far? 81
- 2 Changing Course 87
- 3 Go with the Flow 91
- 4 Coordinates and Vectors 94

MORE 99

PUMP 106

Lesson 2 *Simulating Linear and Nonlinear Motion* 108

INVESTIGATIONS

- 1 Parametric Models for Linear Motion 109
- 2 Parametric Models for Nonlinear Motion 115
- 3 Representing Circles and Arcs Parametrically 119
- 4 Simulating Orbits 123

MORE 127

PUMP 134

Lesson 3 *Looking Back* 136