

Unit **4** Power Models

Lesson 1 *Same Shape, Different Size* 234

INVESTIGATIONS

- 1 Starting from Cube One 235
- 2 The Shape of $y = ax^2$ and $y = ax^3$ 238

MORE 241

Lesson 2 *Inverse Variation* 250

INVESTIGATIONS

- 1 Travel Times 251
- 2 Sound and Light 253
- 3 The Shape of Inverse Variation Models 256

MORE 259

Lesson 3 *Quadratic Models* 265

INVESTIGATIONS

- 1 Going Up . . . Going Down 266
- 2 Profit Prospects 271
- 3 The Shape of Quadratic Models 274
- 4 Solving Quadratic Equations 278
- 5 How Many Solutions Are Possible? 280

MORE 282

Lesson 4 *Radicals and Fractional Power Models* 289

INVESTIGATIONS

- 1 The Power of a Brace 290
- 2 Powerful Radicals 294
- 3 Cube Roots 298
- 4 Operating with Powers 300

MORE 303

Lesson 5 *Looking Back* 311