

Unit 7 Functions and Symbolic Reasoning

Lesson 1 *Reasoning with Exponential and Logarithmic Functions* 436

INVESTIGATIONS

- 1 Exponents and Exponential Functions 437
- 2 Solving Exponential Equations 440
- 3 Natural Logarithms 444
- 4 Solving Logarithmic Equations 448

MORE 451

PUMP 456

Lesson 2 *Reasoning with Trigonometric Functions* 458

INVESTIGATIONS

- 1 Extending the Family of Trigonometric Functions 459
- 2 Proving Trigonometric Identities 464
- 3 Sum and Difference Identities 467

MORE 472

PUMP 478

Lesson 3 *Solving Trigonometric Equations* 480

INVESTIGATIONS

- 1 Solving Linear Trigonometric Equations 481
- 2 Using Identities to Solve Trigonometric Equations 485

MORE 486

PUMP 492

Lesson 4 *The Geometry of Complex Numbers* 494

INVESTIGATIONS

- 1 Complex Numbers and Vectors 495
- 2 DeMoivre's Theorem 498

MORE 501

PUMP 506

Lesson 5 *Looking Back* 508