



Precalculus (2nd Edition)

Give your students a balanced study of the theoretical foundations of Calculus and the practical real-world applications of those foundations with this new Precalculus course. Before diving into trigonometry and its applications, students will review key families of functions. Along the way, special features present a biblical perspective of mathematics and its history. To complete their foundation for higher mathematics, they will study matrices, analytic geometry, and sequences and series. Additionally, students will be introduced to descriptive and inferential statistics as well as differential and integral calculus.

Course materials include a teacher edition, student edition, assessments, and an assessments answer key.



CUMULATIVE REVIEW

State the rotation formulas that will rotate each general quadratic equation to a *uv*-plane without a *uv*-term. [8.4]

42. Graph $(x - 4)^2 + \frac{(y - 1)^2}{25} = 1$ and its foci. Then state its eccentricity. [82]

45. Find the first, second, and tenth term of the sequence $a_n = 4n$. [Algebra] $a_1 = 4$, $a_2 = 8$, $a_{10} = 40$

46. Which polar coordinate expression is equivalent to

C. (2, 30°)

E. (4, 30°)

by including more exercises in each section and chapter

review. Expanded cumulative reviews in each section also

include college entrance preparatory questions.

the rectangular coordinates $(1,\sqrt{3})$? [6.4] D

40. $-x^2 + 2xy - y^2 + \sqrt{2}x + \sqrt{2}y + 144 = 0$ **41.** $3x^2 - 4\sqrt{3}xy + 7y^2 + 120 = 0$

State the next three terms of each se

44. 4, 16, 64, 256... 1024, 4096, 16,384

43. 5, 10, 15, 20... **25, 30, 35**

A. (1 30°

A core objective of the course is to teach students to use statistics to represent data and make inferences. The student edition includes expanded sections covering descriptive and inferential statistics.



The student text includes new features including Biblical Perspective of Mathematics, Historical Connections, Technology Corner, and Data Analysis that help them to appreciate and apply the concepts they learn.



The teacher edition and assessments answer key include stepby-step solutions for activities, guizzes, tests, and exams.





Student Edition

The student edition thoroughly develops key concepts, providing detailed examples to promote student comprehension and integrating practical applications. The text includes multiple representations of concepts and problems, including algebraic, numeric, and graphical representations. The exercise sets provide three levels of difficulty to allow differentiated assignments. Each section includes cumulative reviews to help with long-term mastery and to prepare students for standardized tests and college entrance tests. Students will have the opportunity to use technology to explore mathematical concepts in the Technology Corner feature. They will learn about the TI-84 Plus family of graphic calculators, the Desmos Internet graphing calculator, and about creating and using their own Excel spreadsheets.

Teacher Edition

The teacher edition provides presentation suggestions, motivational ideas, and descriptions of common student errors. Reduced student pages with overprint answers and step-by-step solutions simplify grading. It also includes math-journaling suggestions and additional keyword searches to locate interactive activities. In addition to the Lesson Plan Overview, it provides alternative minimum and extended tracks with suggested assignments for each track that enable customization of lessons.







Assessments and Answer Key

The assessment packet includes twelve chapter tests, four quarterly exams, and regular quizzes for each chapter. Each assessment is carefully coordinated with lesson objectives. The corresponding answer key contains answers and step-by-step solutions for quizzes, tests, and quarterly exams.