

The ACCUPLACER® Tutorials are based on the next-generation ACCUPLACER test specifications. They provide students a more successful and less stressful preparation effort as they work to demonstrate college readiness on next-generation ACCUPLACER exams.

ACCUPLACER Arithmetic, Quantitative Reasoning, Algebra, and Statistics, Advanced Algebra and Functions, Reading, and Writing Tutorials offer targeted instruction, practice, and review. Students engage with the content in an interactive, feedback-rich environment as they progress through next-generation ACCUPLACER test aligned modules. Students practice skills essential to the test they're preparing for and build the depth of knowledge, confidence, and higher order skills required to demonstrate mastery when put to the test.

In each module, the Learn It and Try It make complex ideas accessible to students through focused content, guided analysis, and practice with personalized feedback so students are empowered to increase their Exam Readiness. The Review It offers an engaging and high impact video summary of key concepts and important to grasp connections. The Test It assesses students' mastery of the module's concepts, providing granular performance data to students and teachers, linking a student's performance to content dimensions and descriptions found in the test specification. To help students focus on the content most relevant to them, unit-level pretests and posttests can quickly identify where students are ready for test day and where they still need to review and practice.

This Tutorial is aligned with next-generation ACCUPLACER content dimensions and descriptions for Math and ELA test sections.

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## 1. FUNCTIONS

- **FUNCTIONS AND RELATIONS**
- **DOMAIN AND RANGE**
- **EVALUATING FUNCTIONS**

## 2. WRITING EQUATIONS AND INEQUALITIES

- **FORMULATING AND SOLVING EQUATIONS FROM WORD PROBLEMS**
- **FORMULATING AND SOLVING INEQUALITIES FROM WORD PROBLEMS**

## 3. ONE-VARIABLE EQUATIONS AND INEQUALITIES

- **SOLVING LINEAR EQUATIONS**
- **SOLVING LINEAR INEQUALITIES**

## 4. GRAPHS OF LINEAR EQUATIONS AND INEQUALITIES

- **SLOPE**
- **GRAPHING AND ANALYZING LINEAR FUNCTIONS**
- **GRAPHING AND MANIPULATING  $Y = MX + B$**
- **GRAPHS OF LINEAR INEQUALITIES**

## 5. LINEAR EQUATIONS

- SLOPE-INTERCEPT FORM OF A LINEAR EQUATION
- POINT-SLOPE FORM OF A LINEAR EQUATION

## 6. TWO-VARIABLE LINEAR SYSTEMS

- SOLVING SYSTEMS OF LINEAR EQUATIONS: GUESS AND CHECK
- SOLVING SYSTEMS OF LINEAR EQUATIONS: GRAPHING

## 7. SOLVING TWO-VARIABLE LINEAR SYSTEMS ALGEBRAICALLY

- SOLVING SYSTEMS OF LINEAR EQUATIONS: SUBSTITUTION
- SOLVING SYSTEMS OF LINEAR EQUATIONS: ELIMINATION

## 8. FACTORING QUADRATICS

- FACTORING QUADRATIC TRINOMIALS
- FACTORING SPECIAL CASES

## 9. FACTORING POLYNOMIALS

- FACTORING CUBIC POLYNOMIALS
- FACTORING HIGHER-ORDER POLYNOMIALS

## 10. GRAPHS AND REPRESENTATIONS OF QUADRATIC FUNCTIONS

- QUADRATIC FUNCTIONS
- ANALYZING GRAPHS OF QUADRATIC FUNCTIONS
- REPRESENTATIONS OF QUADRATIC FUNCTIONS

## 11. SOLVING QUADRATIC EQUATIONS

- SOLVING QUADRATIC EQUATIONS BY FACTORING
- QUADRATIC FORMULA
- SYSTEMS OF NONLINEAR EQUATIONS

## 12. POLYNOMIAL FUNCTIONS

- GRAPHS OF POLYNOMIAL FUNCTIONS
- FACTOR THEOREM AND REMAINDER THEOREM
- RATIONAL ROOT THEOREM

## 13. RADICAL EXPRESSIONS

- SIMPLIFYING SQUARE ROOTS
- ADVANCED PROPERTIES OF SQUARE ROOT EXPRESSIONS

## 14. RADICAL FUNCTIONS AND EQUATIONS

- ANALYZING GRAPHS OF SQUARE ROOT FUNCTIONS

- SOLVING SQUARE ROOT EQUATIONS

## 15. RATIONAL EXPRESSIONS AND EQUATIONS

- OPERATIONS WITH RATIONAL EXPRESSIONS
- SOLVING RATIONAL EQUATIONS

## 16. RATIONAL FUNCTIONS

- ANALYZING GRAPHS OF RATIONAL FUNCTIONS
- MODELING SITUATIONS WITH RATIONAL FUNCTIONS

## 17. EXPONENTIAL FUNCTIONS

- EXPONENTIAL FUNCTIONS
- EXPONENTIAL GROWTH AND DECAY

## 18. LOGARITHMIC EXPRESSIONS AND FUNCTIONS

- EVALUATING LOGARITHMIC EXPRESSIONS
- LOGARITHMIC FUNCTIONS

## 19. SOLVING EXPONENTIAL AND LOGARITHMIC EQUATIONS

- SOLVING EXPONENTIAL EQUATIONS
- SOLVING LOGARITHMIC EQUATIONS

## 20. MIDPOINT AND DISTANCE FORMULAS

- LENGTH AND THE DISTANCE FORMULA
- MIDPOINT FORMULA ON THE COORDINATE PLANE
- PARALLEL LINES AND ANGLE RELATIONSHIPS

## 21. COORDINATE GEOMETRY

- PERIMETER ON THE COORDINATE PLANE
- AREA ON THE COORDINATE PLANE
- CIRCLES

## 22. TRANSFORMATIONS ON THE COORDINATE PLANE

- TRANSFORMATIONS ON THE COORDINATE PLANE
- DILATIONS, TRANSLATIONS, ROTATIONS, AND REFLECTIONS

## 23. VOLUME

- VOLUME OF PRISMS AND PYRAMIDS
- VOLUME OF CYLINDERS AND CONES

## 24. CONGRUENCE

- TRIANGLES AND CONGRUENCE TRANSFORMATIONS
- TRIANGLE CONGRUENCE

## 25. SIMILARITY

- TRIANGLES AND SIMILARITY TRANSFORMATIONS
- TRIANGLE SIMILARITY

## 26. RIGHT TRIANGLES AND TRIGONOMETRIC RATIOS

- PYTHAGOREAN THEOREM
- SPECIAL RIGHT TRIANGLES
- TRIGONOMETRIC RATIOS

## 27. TRIGONOMETRY

- LAWS OF SINE AND COSINE
- RADIANS AND THE UNIT CIRCLE