Prepare for Placement

Impact of Placement Tests on New College Students

Dominique Jones, ACCUPLACER, College Board
Agenda

- Placement tests and their impact on student’s
- ACCUPLACER Program
- Next-Generation ACCUPLACER Tests
  - Reading
  - Writing
  - Math
- Account Setup
- Placement Decisions
- Q&A
Placement Tests
Placement Tests

What are they?

• Higher ed institutions use placement tests in subjects like reading, writing, and math, to determine the academic skill level of entering students

• Results are used to place students in classes appropriate for their skill level

• Almost all two-year colleges and many public four-year colleges require students to take at least one placement test when they first get to campus
  • 92% of 2-yr institutions use placement tests to determine if students need remediation
    • The most commonly used placement exam is ACCUPLACER

• The National Center for Education Statistics has seen an upward trend in enrollment of American Indian/Alaska Native students in both two and four-year institutions, with over half of the enrolled AI/AN population attending a four-year institution

• 56% of Hispanic and 44% of Black students begin their college experience at a 2-yr institution
Academic Impact of Placement Tests

- Placement tests should be considered “high stakes” as their results greatly impact a student’s college experience.
- Test results determine if a student is placed in a credit-bearing course or if a remedial course is more appropriate.
- Contrary to popular belief, remedial education is not confined to low-income students.

Household Income of First-year Student Enrolled in Remediation
(Education Reform Now Analysis of National Postsecondary Student Aid Survey. NPSAS)

- 36.7% for the Top Income Quintile ($133,441+)
- 18.5% for the Second Highest Income Quintile ($74,001-$113,440)
- 16.9% for the Middle Income Quintile ($48,001-$74,000)
- 15.5% for the Second Bottom Income Quintile ($26,251-$48,000)
- 12.5% for the Bottom Income Quintile ($0-$26,520)

Nearly half (45%) of the students come from middle, upper-middle, and high-income families.

Placement tests should be considered “high stakes” as their results greatly impact a student’s college experience.
Test results determine if a student is placed in a credit-bearing course or if a remedial course is more appropriate.
Contrary to popular belief, remedial education is not confined to low-income students.
Few remedial students ever enroll in, let alone complete their introductory courses in math and English.

Only 17% go on to graduate with a bachelor’s degree; 26% with an associate’s degree or certificate.

Complete Remediation and Associated College-Level Courses in Two Years

( Remediation: Higher Education’s Bridge to Nowhere. Complete College America)

- 2-Year Institutions: 22.3% Complete remediation, 62.0% Complete remediation & coursework
- 4-Year Institutions: 36.8% Complete remediation, 74.4% Complete remediation & coursework
Financial Impact of Placement Tests

- Remedial courses are not credit-bearing and do not count toward a degree, meaning students stay at institutions longer if they graduate at all.

- While Pell Grants can be used to pay for remedial courses, most financial aid can only be used towards credit-bearing coursework.

- With the average college semester costing in-state students $3,440 at a community college or $9,410 at a four-year institution, over time, this can result in thousands of additional out of pocket expenses, to pay for courses that don’t get the student any closer to their ultimate goals.
Prepare Students for Placement

How to do it

- A student’s first introduction to the placement testing should not be their first day on campus
- Educate students before they leave high school on what they can expect when they first arrive on campus
- Encourage students to prepare by brushing up on the skills needed to be successful in first-year college courses.
  - Utilize ACCUPLACER’s free print and online student resources
ACCUPLACER Practice Resources

Free Print Sample Questions!

• Visit our website to print and distribute subject specific sample questions

2. A club has 36 members. If each member donates 12 items for an auction, how many items will there be in the auction?
   A. 48
   B. 108
   C. 422
   D. 432

2. **Choice D is correct.** To find the total number of items, multiply the total number of members by the number of items each member will donate. This is represented by $36 \times 12 = 432$. Choice A is incorrect because this results from adding instead of multiplying. Choice B is incorrect because a multiplication error was made. This results from not using a placeholder zero or writing the numbers starting in the tens place when multiplying the second digit. Choice C is incorrect because a multiplication error was made. This results from making an error when carrying from the ones digit to the tens digit.

accuplacer.collegeboard.org/student/practice
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Free Online Study App

- Practice from any phone, tablet, or electronic device with our free web-based study app
- www.accuplacerpractice.collegeboard.org
Student Onboarding
ACCUPLACER Program
ACCUPLACER is a computer-adaptive assessment system designed to measure student readiness for credit-bearing college courses.

- It consists of rigorous, reliable, and valid test content
- It quickly, accurately and efficiently assesses students' skills
- It is delivered on a robust test platform
  - Internet-based
  - 24/7 access
  - Continuous enhancement
- It includes an array of free services
  - Professional Development
  - Technical Support
Next-Generation ACCUPLACER

• Next-Generation ACCUPLACER launched September 2016

• Classic ACCUPLACER tests will retire on January 28, 2019

Why we did it
• ACCUPLACER has been administered for over 30 years.
• We paid close attention to:
  • research and evidence on what matters most for college and career readiness and success
  • curriculum trends
  • user feedback

How we did it
• Next-generation test specifications are:
  • aligned to the same content domain continuum as the redesigned SAT suite of assessments
  • aligned to states that have adopted college and career readiness standards
  • connected to instruction
  • developed following College Board’s guiding principles
  • Test design approach considers both STEM and non-STEM math pathways
## Classic vs. Next-Generation ACCUPLACER

<table>
<thead>
<tr>
<th>Category</th>
<th>Classic ACCUPLACER</th>
<th>Next-Generation ACCUPLACER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>• Reading Comprehension</td>
<td>• Reading</td>
</tr>
<tr>
<td></td>
<td>• Sentence Skills</td>
<td>• Writing</td>
</tr>
<tr>
<td></td>
<td>• Arithmetic</td>
<td>• Arithmetic</td>
</tr>
<tr>
<td></td>
<td>• Elementary Algebra</td>
<td>• Quantitative Reasoning, Algebra, and Statistics</td>
</tr>
<tr>
<td></td>
<td>• College-Level Math</td>
<td>• Advanced Algebra and Functions</td>
</tr>
<tr>
<td>Score Reporting</td>
<td>• Scale ranges from 20 to 120</td>
<td>• Scale ranges from 200 to 300</td>
</tr>
</tbody>
</table>

WritePlacer and ESL tests will remain the same.
The ACCUPLACER platform delivers a customized testing experience by using prior answers to estimate which items the student is likely to answer successfully.

Score is calculated and the next best item is selected based on:
• Difficulty
• Content
• Test Specifications
Next-Generation ACCUPLACER Reading Test
### Next-Generation Reading

#### Test Overview

**Test Format**
- 20 questions
  - no change in # of items
  - 8 Set-based questions
    - presented in two sets of 4
  - 12 discrete questions

**Content Domains**
- Information and Ideas
- Rhetoric
- Synthesis
- Vocabulary

**Content Areas**
- Careers/history/social studies
- Humanities
- Science

**Text Length**
- 75-400 words
- Single texts (75-400 words)
- Paired texts (~400 words across two texts)

**Text Complexity Ranges**
- Somewhat challenging
  - grades 6-8
- Moderately challenging
  - grades 9-10
- Complex
  - grade 11-CCR
- Highly complex
  - early-postsecondary

- Passages are a mix of previously published (authentic) and commissioned texts.
Reading Set 1

Literary Passage
Reading Set 2

Paired Passages

PASSAGE 1
- QUESTION 1 (ABOUT PASSAGE 1)
- QUESTION 2 (ABOUT PASSAGE 2)

PASSAGE 2
- QUESTION 3 (ABOUT BOTH)
- QUESTION 4 (ABOUT BOTH)
Reading

Discrete Questions

- 12 questions
- Passages are informational and range in content areas from science, humanities, or careers/history/social studies
- Passages are 75-200 words long
# Next-Generation Reading

## Test Specifications

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Questions</th>
<th>Percentage of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set-based questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 literary set</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>1 informational paired set</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Discrete questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informational</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question content distribution</th>
<th>Number of Questions</th>
<th>Percentage of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Ideas</td>
<td>7-11</td>
<td>35-55</td>
</tr>
<tr>
<td>Rhetoric</td>
<td>7-11</td>
<td>35-55</td>
</tr>
<tr>
<td>Synthesis</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>2-4</td>
<td>10-20</td>
</tr>
<tr>
<td>Content Dimension</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Information and Ideas</strong></td>
<td>These questions focus on the informational content of text.</td>
<td></td>
</tr>
<tr>
<td>Reading closely</td>
<td>The student will identify information and ideas explicitly stated in text and will draw reasonable inferences and logical conclusions from text.</td>
<td></td>
</tr>
<tr>
<td>Determining central ideas and themes</td>
<td>The student will identify explicitly stated central ideas and themes in text and determine implicit central ideas and themes from text.</td>
<td></td>
</tr>
<tr>
<td>Summarizing</td>
<td>The student will identify a reasonable summary of a text.</td>
<td></td>
</tr>
<tr>
<td>Understanding relationships</td>
<td>The student will identify explicitly stated relationships or determine implicit relationships between and among individuals, events, or ideas (e.g., cause-effect, comparison-contrast, sequence).</td>
<td></td>
</tr>
<tr>
<td><strong>Rhetoric</strong></td>
<td>These questions focus on the craft and structure of writing.</td>
<td></td>
</tr>
<tr>
<td>Analyzing word choice rhetorically</td>
<td>The student will determine how the selection of specific words and phrases or the use of patterns of words and phrases shapes meaning and tone in text.</td>
<td></td>
</tr>
<tr>
<td>Analyzing text structure</td>
<td>The student will describe the overall structure of a text or analyze the relationship between a particular part of a text (e.g., a sentence) and the whole text.</td>
<td></td>
</tr>
<tr>
<td>Analyzing point of view</td>
<td>The student will determine the point of view or perspective from which a text is related or the influence this point of view or perspective has on content and style.</td>
<td></td>
</tr>
<tr>
<td>Analyzing purpose</td>
<td>The student will determine the main or most likely purpose of a text or of a particular part of a text (typically, one or more paragraphs).</td>
<td></td>
</tr>
<tr>
<td>Analyzing arguments</td>
<td>The student will analyze claims and counterclaims, assess an author’s reasoning for soundness, and analyze how an author uses or fails to use evidence to support a claim or counterclaim.</td>
<td></td>
</tr>
<tr>
<td><strong>Synthesis</strong></td>
<td>These questions focus on synthesizing multiple sources of information.</td>
<td></td>
</tr>
<tr>
<td>Analyzing multiple texts</td>
<td>The student will synthesize information and ideas from multiple texts. (Note: All of the skills listed above may be tested with either single or paired passages.)</td>
<td></td>
</tr>
<tr>
<td><strong>Vocabulary</strong></td>
<td>These questions focus on determining the meaning of words and phrases in the contexts in which they appear.</td>
<td></td>
</tr>
</tbody>
</table>
Next-Generation ACCUPLACER Writing Test
Next-Generation Writing

Test Overview

Test Format
• 25 multiple choice questions
  • 5 sets of 5

Content Areas
• Literary (fiction or literary nonfiction)
• Careers/history/social studies
• Science
• Humanities

Content Domains
• Expression of Ideas
  • Development
• Organization
  • Effective Language Use

Text Complexity Ranges
• Somewhat challenging
  • grades 6-8
• Moderately challenging
  • grades 9-10
• Complex
  • grade 11-CCR
• Highly complex
  • early-postsecondary

Text Length
• 300-350 words-multi paragraph
  • Commissioned essays – a mix of literary and informational
Writing

Passage-Based Sets

- 25 questions total
- 5 passage-based sets consisting of 5 questions each
## Next-Generation Writing

### Test Specifications

<table>
<thead>
<tr>
<th>Content Areas</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Set-based questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 literary set</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>4 informational paired set</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question content distribution</th>
<th>Number of Questions</th>
<th>Percentage of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression of Ideas</td>
<td>14-16</td>
<td>56-64</td>
</tr>
<tr>
<td>• Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Effective Language Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard English Conventions</td>
<td>9-11</td>
<td>36-44</td>
</tr>
<tr>
<td>• Sentence Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Conventions of Usage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Conventions of Punctuation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Next-Generation Writing

#### Test Content

<table>
<thead>
<tr>
<th>Content Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development</strong></td>
<td>These questions focus on revising text in relation to rhetorical purpose. (Prior knowledge of the topic is not assessed, though consistency of the material within a passage may be.)</td>
</tr>
<tr>
<td>Proposition</td>
<td>The student will add, revise, or retain central ideas, main claims, topic sentences, and the like to structure texts and to convey arguments, information, and ideas clearly and effectively.</td>
</tr>
<tr>
<td>Support</td>
<td>The student will add, revise, or retain information and ideas (e.g., details, facts, statistics) intended to support claims or points in text.</td>
</tr>
<tr>
<td>Focus</td>
<td>The student will add, revise, retain, or delete information and ideas in text for the sake of relevance to topic and purpose.</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>These questions focus on revision of text to improve the logic and cohesion of text at the sentence, paragraph, and whole-text level.</td>
</tr>
<tr>
<td>Logical sequence</td>
<td>The student will revise text as needed to ensure that information and ideas are presented in the most logical order.</td>
</tr>
<tr>
<td>Introductions, conclusions, and transitions</td>
<td>The student will revise text as needed to improve the beginning or ending of a text or paragraph or to ensure that transition words, phrases, or sentences are used effectively to connect information and ideas.</td>
</tr>
<tr>
<td><strong>Effective Language Use</strong></td>
<td>These questions focus on revision of text to improve the use of language to accomplish particular rhetorical purposes.</td>
</tr>
<tr>
<td>Precision</td>
<td>The student will revise text as needed to improve the exactness or content appropriateness of word choice.</td>
</tr>
<tr>
<td>Concision</td>
<td>The student will revise text as needed to improve the economy of word choice (i.e., to eliminate wordiness and redundancy).</td>
</tr>
<tr>
<td>Style and tone</td>
<td>The student will revise text as needed to ensure the consistency of style and tone within a text or to improve the match of style and tone to purpose.</td>
</tr>
<tr>
<td>Syntax</td>
<td>The student will use various sentence structures to accomplish needed rhetorical purposes.</td>
</tr>
</tbody>
</table>
Next-Generation Writing

<table>
<thead>
<tr>
<th>Content Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sentence Structure</strong></td>
<td></td>
</tr>
<tr>
<td>Sentence boundaries</td>
<td>The student will recognize and correct grammatically incomplete sentences (e.g., rhetorically inappropriate fragments and run-ons).</td>
</tr>
<tr>
<td>Subordination and coordination</td>
<td>The student will recognize and correct problems in coordination and subordination in sentences.</td>
</tr>
<tr>
<td>Parallel structure</td>
<td>The student will recognize and correct problems in parallel structure in sentences.</td>
</tr>
<tr>
<td>Modifier placement</td>
<td>The student will recognize and correct problems in modifier placement (e.g., misplaced or dangling modifiers).</td>
</tr>
<tr>
<td>Inappropriate shifts in verb tense</td>
<td>The student will recognize and correct inappropriate shifts in verb tense within and between sentences.</td>
</tr>
<tr>
<td>Inappropriate shifts in verb voice and mood</td>
<td>The student will recognize and correct inappropriate shifts in verb voice and mood within and between sentences.</td>
</tr>
<tr>
<td>Inappropriate shifts in pronoun person and number</td>
<td>The student will recognize and correct inappropriate shifts in pronoun person and number within and between sentences.</td>
</tr>
<tr>
<td><strong>Conventions of Usage</strong></td>
<td></td>
</tr>
<tr>
<td>Possessive determiners</td>
<td>The student will recognize and correct cases in which possessive determiners (its, your, their), contractions (it’s, you’re, they’re), and adverbs (there) are confused with each other.</td>
</tr>
<tr>
<td>Noun agreement</td>
<td>The student will recognize and correct lack of agreement between nouns.</td>
</tr>
<tr>
<td>Pronoun clarity</td>
<td>The student will recognize and correct pronouns with unclear or ambiguous antecedents.</td>
</tr>
<tr>
<td>Content Dimension</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Pronoun-antecedent agreement</td>
<td>The student will recognize and correct lack of agreement between pronoun and antecedent.</td>
</tr>
<tr>
<td>Subject-verb agreement</td>
<td>The student will recognize and correct lack of agreement between subject and verb.</td>
</tr>
<tr>
<td>Frequently confused words</td>
<td>The student will recognize and correct instances in which a word or phrase is confused with another (e.g., accept/except, allusion/illusion).</td>
</tr>
<tr>
<td>Logical comparison</td>
<td>The student will recognize and correct cases in which unlike terms are compared.</td>
</tr>
<tr>
<td>Conventional expression</td>
<td>The student will recognize and correct cases in which a given expression is inconsistent with Standard Written English.</td>
</tr>
<tr>
<td><strong>Conventions of Punctuation</strong></td>
<td></td>
</tr>
<tr>
<td>End-of-sentence punctuation</td>
<td>The student will recognize and correct inappropriate uses of ending punctuation in cases in which the context makes the intent clear.</td>
</tr>
<tr>
<td>Within-sentence punctuation</td>
<td>The student will correctly use, recognize, and correct inappropriate uses of colons, semicolons, and dashes to indicate sharp breaks in thought within sentences; ellipses to indicate a pause or omission; and colons to introduce lists or quotations.</td>
</tr>
<tr>
<td>Possessive nouns and pronouns</td>
<td>The student will recognize and correct inappropriate uses of possessive nouns and pronouns, as well as differentiate between possessive and plural forms.</td>
</tr>
<tr>
<td>Items in a series</td>
<td>The student will correctly use, recognize, and correct inappropriate uses of punctuation (commas and sometimes semicolons) to separate items in a series.</td>
</tr>
<tr>
<td>Nonrestrictive and parenthetical elements</td>
<td>The student will correctly use punctuation (commas, parentheses, dashes) to set off nonrestrictive and parenthetical sentence elements, as well as recognize and correct cases in which restrictive or essential sentence elements are inappropriately set off with punctuation.</td>
</tr>
<tr>
<td>Hyphenation conventions</td>
<td>The student will recognize and correct violations of hyphenation conventions.</td>
</tr>
<tr>
<td>Unnecessary punctuation</td>
<td>The student will recognize and correct cases in which unnecessary punctuation appears in a sentence.</td>
</tr>
</tbody>
</table>
WritePlacer

Essay

• Test remains the same

Test Summary
8-point holistic scoring rubric with 6 dimensions
• Purpose and Focus
• Organization and Structure
• Development and Support
• Sentence Variety and Style
• Mechanical Conventions
• Critical Thinking
• 17 prompts available

Timed or Untimed
• If timed, in 10-minute increments up to 2 hours

Clock
• On or off
• Count down or count up

Student Essay Report
• Reports can be run to extract writing samples for review by faculty
Next-Generation ACCUPLACER Math Tests
Next-Generation Arithmetic

Test Overview

Test Format
• 20 discrete multiple-choice questions
• Calculator usage: 4-function calculator available for some items

Content Assessed
• Whole number operations
• Fraction operations
• Decimal operations
• Percent
• Number comparisons and equivalents

Skills Assessed
• Computational fluency
• Conceptual understanding
• Applications woven throughout many strands
# Next-Generation Arithmetic

## Test Specifications

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Questions</th>
<th>Percentage (%) of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole number operations</td>
<td>3-5</td>
<td>15-25</td>
</tr>
<tr>
<td>Fraction operations</td>
<td>3-5</td>
<td>15-25</td>
</tr>
<tr>
<td>Decimal operations</td>
<td>3-5</td>
<td>15-25</td>
</tr>
<tr>
<td>Percent</td>
<td>3-5</td>
<td>15-25</td>
</tr>
<tr>
<td>Number comparisons and equivalents</td>
<td>3-5</td>
<td>15-25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td></td>
</tr>
</tbody>
</table>
# Next-Generation Arithmetic

## Test Content

<table>
<thead>
<tr>
<th>Content Dimensions and Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Whole number operations</strong></td>
</tr>
<tr>
<td>Addition, subtraction, multiplication, and division of whole numbers, including order of operations, estimation and rounding, and applying operations to real-life contexts</td>
</tr>
<tr>
<td><strong>Fraction operations</strong></td>
</tr>
<tr>
<td>Addition, subtraction, multiplication, and division of fractions and mixed numbers, including order of operations, estimation and rounding, and applying operations to real-life contexts</td>
</tr>
<tr>
<td><strong>Decimal operations</strong></td>
</tr>
<tr>
<td>Addition, subtraction, multiplication, and division of decimal numbers, including order of operations, estimation and rounding, and applying operations to real-life contexts</td>
</tr>
<tr>
<td><strong>Percent</strong></td>
</tr>
<tr>
<td>Calculation with percent with or without a context, including percent increase, percent decrease, determining the percent of a number, and applying percent to real-life contexts</td>
</tr>
<tr>
<td><strong>Number comparisons and equivalents</strong></td>
</tr>
<tr>
<td>Comparisons of differently formatted values by ordering, using the number line, and using equality/inequality symbol notation; and evaluation of equivalent number statements (to assess mental math strategies)</td>
</tr>
</tbody>
</table>
Next-Generation Quantitative Reasoning, Algebra, and Statistics (QAS)

Test Overview

Test Format
• 20 discrete multiple-choice questions
• Calculator usage: 4-function calculator and square root available for some items

Content Assessed
• Rational numbers
• Ratio and proportional relationships
• Exponents
• Algebraic expressions
• Linear equations
• Linear applications and graphs
• Probability and sets
• Descriptive statistics
• Geometry concepts for HS Pre-Algebra
• Geometry concepts for HS Algebra 1

Skills Assessed
• Computational fluency
• Conceptual understanding
• Applications woven throughout many strands
## Next-Generation QAS

### Test Specifications

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Questions</th>
<th>Percentage (%) of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational numbers</td>
<td>1-3</td>
<td>5-15</td>
</tr>
<tr>
<td>Ration and proportional relationships</td>
<td>3-4</td>
<td>15-20</td>
</tr>
<tr>
<td>Exponents</td>
<td>2-3</td>
<td>10-15</td>
</tr>
<tr>
<td>Algebraic expressions</td>
<td>2-3</td>
<td>10-15</td>
</tr>
<tr>
<td>Linear equations</td>
<td>2-4</td>
<td>10-20</td>
</tr>
<tr>
<td>Linear applications and graphs</td>
<td>2-4</td>
<td>10-20</td>
</tr>
<tr>
<td>Probability and sets</td>
<td>1-3</td>
<td>5-15</td>
</tr>
<tr>
<td>Descriptive statistics</td>
<td>1-3</td>
<td>5-15</td>
</tr>
<tr>
<td>Geometry concepts for Pre-Algebra</td>
<td>1-2</td>
<td>5-10</td>
</tr>
<tr>
<td>Geometry concepts for Algebra 1</td>
<td>1-2</td>
<td>5-10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Content Dimensions and Descriptions

#### Rational numbers
Calculating and applying rational numbers (with or without a context), including usage of absolute value

#### Ratio and proportional relationships
Calculating with rates, ratios, and proportions (with or without a context), and using unit conversions

#### Exponents
Calculating with exponents, radicals, fractional exponents, and applying scientific notation

#### Algebraic expressions
Creating and evaluating expressions to represent situations, and using properties of operations to combine like terms and identify equivalent expressions

#### Linear equations
Creating linear equations in one or two variables, solving linear equations, simplifying linear equations and inequalities, and solving systems of two linear equations

#### Linear applications and graphs
Applying linear equations to real-life contexts, using elementary linear functions to describe relationships, and graphing linear equations in two variables, linear inequalities, parallel and perpendicular lines, and systems of equations

#### Probability and sets
Calculating probability (simple, compound, and conditional), and defining sample spaces and events using set notation

#### Descriptive statistics
Interpreting graphical displays of data (histograms, box plots, and scatterplots), describing shape and spread of a sample set, and calculating measures of center

#### Geometry concepts for Pre-Algebra
Determining area and perimeter, circle area and circumference, and volume of prisms

#### Geometry concepts for Algebra 1
Creating expressions for area, perimeter, and volume, using distance formula and Pythagorean theorem, and evaluating basic geometric transformations
Next-Generation Advanced Algebra and Functions (AAF)

Test Overview

Test Format
• 20 discrete multiple-choice questions
• Calculator usage: 4-function, square root, graphing calculator available for some items

Content Assessed
• Linear equations
• Linear applications and graphs
• Factoring
• Quadratics
• Functions
• Radical and rational equations
• Polynomial equations
• Exponential and logarithmic equations
• Geometry concepts for Algebra 1
• Geometry concepts for Algebra 2
• Trigonometry

Skills Assessed
• Computational fluency
• Conceptual understanding
• Applications woven throughout many strands
# Next-Generation AAF

## Test Specifications

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Questions</th>
<th>Percentage (%) of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear equations</td>
<td>2-3</td>
<td>10-15</td>
</tr>
<tr>
<td>Linear applications and graphs</td>
<td>2-3</td>
<td>10-15</td>
</tr>
<tr>
<td>Factoring</td>
<td>1-2</td>
<td>5-10</td>
</tr>
<tr>
<td>Quadratics</td>
<td>2-3</td>
<td>10-15</td>
</tr>
<tr>
<td>Functions</td>
<td>2-4</td>
<td>10-20</td>
</tr>
<tr>
<td>Radical and rational equations</td>
<td>1-3</td>
<td>5-15</td>
</tr>
<tr>
<td>Polynomial equations</td>
<td>1-3</td>
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</tr>
<tr>
<td>Exponential and logarithmic equations</td>
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<tr>
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<td>5-10</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>1-3</td>
<td>5-15</td>
</tr>
<tr>
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<td><strong>20</strong></td>
<td></td>
</tr>
<tr>
<td>Content Dimensions and Descriptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Linear equations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating linear equations in one or two variables, solving linear equations, simplifying linear equations and inequalities, and solving systems of two linear equations</td>
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<td></td>
</tr>
<tr>
<td><strong>Linear applications and graphs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applying linear equations to real-life contexts, using elementary linear functions to describe relationships, and graphing linear equations in two variables, linear inequalities, parallel and perpendicular lines, and systems of equations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factoring</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factoring methods applied to quadratics, cubics, and polynomials</td>
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<td></td>
</tr>
<tr>
<td><strong>Quadratics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating quadratic equations in one or two variables, solving quadratic equations (via factoring or using the quadratic equation), simplifying quadratic equations and inequalities, and solving systems that involve a quadratic equation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Functions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating functions using function notation, evaluating linear and quadratic functions, graphing functions, and interpreting functions within a context</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Radical and rational equations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating radical and rational equations and functions in one variable, determining domain and range for radical and rational functions, graphing radical and rational functions, and simplifying radical and rational expressions and equations</td>
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<td></td>
</tr>
<tr>
<td><strong>Polynomial equations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating polynomial equations in one and two variables, solving polynomial equations, and graphing polynomial functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exponential and logarithmic equations</strong></td>
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<tr>
<td>Creating exponential and logarithmic equations in one and two variables, solving exponential and logarithmic equations, graphing exponential and logarithmic functions, and interpreting exponential and logarithmic functions</td>
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<td><strong>Geometry concepts for Algebra 1</strong></td>
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<td></td>
</tr>
<tr>
<td>Creating expressions for area, perimeter, and volume, using distance formula and Pythagorean theorem, and evaluating dilations, rotations, translations, and reflections</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Geometry concepts for Algebra 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determining volume of nonprism objects, using intersecting line theorems, using triangle similarity and congruency theorems, and using circle equations in the coordinate plane</td>
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<td></td>
</tr>
<tr>
<td><strong>Trigonometry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solving trigonometric equations, using right triangle trigonometry including special triangles, evaluating equivalent trigonometric functions, graphing trigonometric relationships, determining arc length and radian measures, and using the law of sines and the law of cosines</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Account Setup
Account Setup

Decision Points
- Branching Profiles
- Background Questions
- Placement Messages
- Multiple Factors
Branching Profiles

Sample using Background Questions*

Is English the language most often spoken at home?  
AND  
Do you have 5 or more years of formal education in US?

Yes ➔ Next-Generation Reading

No ➔ ESL Reading

*Best Practice – use more than one BQ question to determine initial test
Sample Using Test Scores

Next-Generation Reading → Next-Generation Writing

- If WP >= X
  - College Level Course
- If WP <= X
  - Learning Support Required

- Essay Required WritePlacer
- If WP <= X
  - Learning Support Required
Configurable Placement Rules*

*Test scores are for illustrative purposes only.
**Multiple Factors**

Will multiple factors be used—and what measures might be included?

**Options with ACCUPLACER**

**Examples**
- Non-cognitive factors/grit
- HS GPA/transcript
- HS exit exams
- SAT scores
- Transferred credits/PLA credits
- Faculty authored Local Tests
- Scores from other assessments

![Diagram showing Local Test, User-Defined Fields, Composite Scores, and Test Scores and MF leading to Placement.](Diagram.png)
The following Conversion Tools have been created to assist you:

- Convert Branching Profiles
- Convert Composite Scores
- Convert Placement Rules
- Conversion Dashboard

These tools will help you convert some of your existing settings from Classic to Next-Generation.

NOTE: The automated conversion completes at a point in time (March 25). If you make changes to your Classic BPs, CSs, or PRs after the automated conversion, the automatically converted items will not include those changes.
Placement Decisions
To ensure valid placement decisions, appropriate course placement scores have to be established.
Establishing Placement Scores

1. Standard Setting*
2. Skills Insight Statements
3. Concordance Tables

Faculty involvement is key!

*The Most Desirable Option
Standard Setting

- A process implemented to define the level of proficiency necessary for a student to succeed in the course to which they are being placed and the cut score corresponding to that proficiency

- **Who is needed**
  - Standard Setting Panel
  - Institution Policy Makers

- **Process**
  - Describe knowledge, skills, and abilities required to be successful in the course
  - Have panel take each next-generation ACCUPLACER test

- **Product**
  - Performance Level Descriptions (PLDs)
  - Placement Course Scores

- *Bookmark* methodology is recommended and supported by the College Board
Three-round process in which panelists work through a booklet of ACCUPLACER test questions arranged in order from easiest to hardest.

Panelists place a bookmark after the number of questions they determine students should be able to answer at a minimum.

Bookmark timeline:
1. Locate instructions on how to request materials are on the Resources tab of the ACCUPLACER Platform
2. Email your completed form to: externaldatarequest@collegeboard.org
3. Receive License Agreement, gather appropriate signatures and return to College Board (2-3 weeks)
4. Receive items (3-4 weeks)
5. Conduct your standard setting
6. Send data from standard setting to College Board
7. Receive scales scores from bookmark finding (4-6 weeks)
Skills Insight™
Statements

- Statements of what students know and are able to do at different ranges of ACCUPLACER scores

- Example from Next-Generation Reading

**Score range: 263–275**

Students scoring in this band can typically demonstrate the following additional skills and knowledge in moderately challenging to complex texts:

- Describe the effect that word choice has on meaning or tone when the effect is subtle
- Determine a subtly established point of view or perspective in a text
- Make moderately challenging to complex connections between multiple texts on the same topic
- Determine the meaning of a relatively uncommon high-utility academic word or phrase in context or the literal meaning of a moderately challenging figurative expression in context

- If a statement matches your list of what students know and are able to do to succeed in the class to which you would like to use the ACCUPLACER test for placement, you may use the corresponding scaled score as your starting course placement score.
Concordance Tables

What it is:
- A valid, proven way to compare scores from different assessments
- Used to estimate an examinee’s score on one assessment based on their score from a different assessment
- May be used to determine course placement scores on next-generation ACCUPLACER placement tests based on scores successfully used on classic placement tests

What is required:
- The tests must measure the same thing
- A correlation coefficient of at least 0.866 is needed between scores on the two tests
- The population of students used to create the concordance table should not differ in a meaningful way from the population of students to which the concordance table results will be applied

The limitations:
- A concordance table can provide a suggested location for where an examinee may score if given the other assessment; but this is not a perfect predictor.
- The alignment of the content, correlation, and population are all potential sources of error.
- It is entirely possible, if not likely, that an examinee would get a totally different score if they actually took the assessment from what is predicted by the concordance table.
## Update on Next-Generation Concordance Tables

**Coming Spring 2018**

<table>
<thead>
<tr>
<th>Category</th>
<th>Classic ACCUPLACER</th>
<th>Next-Generation ACCUPLACER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>• Reading Comprehension</td>
<td>• Reading</td>
</tr>
<tr>
<td></td>
<td>• Sentence Skills</td>
<td>• Writing</td>
</tr>
<tr>
<td></td>
<td>• Arithmetic</td>
<td>• Arithmetic</td>
</tr>
<tr>
<td></td>
<td>• Elementary Algebra</td>
<td>• Quantitative Reasoning, Algebra, and Statistics</td>
</tr>
<tr>
<td></td>
<td>• College-Level Math</td>
<td>• Advanced Algebra and Functions</td>
</tr>
</tbody>
</table>
Admitted Class Evaluation Service (ACES)

- ACES is a free and confidential online service that evaluates the efficacy of your placement scores
  - Compare ACCUPLACER scores to actual course grades

- Validate the results of your placement policies to refine or make adjustments to course placement scores
  - Best Practice – conduct ACES study after one year and thereafter, every 3-5 years or whenever data points for placement decisions change

- Allows for up to five factors per course (so multiple factors can be included)

- aces.collegeboard.org
Setting and Validating Standards
Thank You

Free Resources:
https://accuplacer.collegeboard.org/next-generation

Further Questions:
accuplacer@collegeboard.org
djones@collegeboard.org