

**THE  
OFFICIAL  
ACT<sup>®</sup>  
PREP GUIDE**

The **ONLY** Official Prep Guide  
from the Makers of the ACT

**ACT<sup>®</sup>**

**WILEY**

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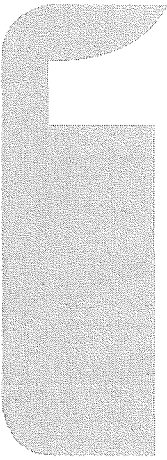
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Sample





# Chapter 1: About the ACT

The ACT measures your achievement in core academic areas important for your college and career success: English, math, reading, science, and (optionally) writing. It isn't an IQ test—it doesn't measure your basic intelligence. It's an achievement test that's been carefully designed—using surveys of classroom teachers, reviews of curriculum guides for schools all over the country, and advice from curriculum specialists and college faculty members—to be one of several effective tools for evaluating your college and career readiness.

The individual tests that make up the ACT consist of questions that measure your knowledge and skills. You're not required to memorize facts or vocabulary to do well on the ACT. Of course, all the terms, formulas, and other information you learned in your classes will be useful to you when you take the ACT. However, last-minute cramming (such as memorizing 5,000 vocabulary words or the entire periodic table of elements) won't directly improve your performance on the ACT.

## Description of the ACT

The ACT consists of four multiple-choice tests—English, mathematics, reading, and science—and an optional writing test. Topics covered on these five tests correspond very closely to topics covered in typical high school classes. Table 1.1 gives you a snapshot of all five tests.

Test	Questions	Time	Content Covered
<b>English</b>	75 questions	45 minutes	Measures standard written English knowledge and skills along with English language conventions
<b>Mathematics</b>	60 questions	60 minutes	Measures mathematical skills students have typically acquired in courses taken up to the beginning of grade 12
<b>Reading</b>	40 questions	35 minutes	Measures reading comprehension
<b>Science</b>	40 questions	35 minutes	Measures the interpretation, analysis, evaluation, reasoning, and problem-solving skills required in the natural sciences
<b>Writing (optional)</b>	1 prompt	40 minutes	Measures writing skills emphasized in high school English classes and in entry-level college composition courses

Questions on the tests are intended to help assess college and career readiness. The following sections provide an overview of what you should know to perform well on each test. For additional details, check out the ACT College and Career Readiness Standards presented in chapter 12.

### English Test

75 questions, 45 minutes

The English test consists of five essays or passages, each of which is accompanied by a sequence of multiple-choice test questions. Different passage types are employed to provide a variety of rhetorical situations. Passages are chosen not only for their appropriateness in assessing writing skills but also to reflect students' interests and experiences.

You will receive four scores for the ACT English test: a total test score based on all 75 questions and three reporting category scores based on the following:

- Production of Writing
- Knowledge of Language
- Conventions of Standard English

## Production of Writing

Production of Writing tests knowledge and skills in two areas of English composition:

- Topic development in terms of purpose and focus
- Organization, unity, and cohesion

### Topic Development in Terms of Purpose and Focus

Examples of knowledge and skills tested include the following:

- Determine the relevance of material to the topic or the focus of the passage or paragraph.
- Identify the purpose of a word or phrase (for example, identify a person, define a term, or describe an object).
- Determine whether a passage has met a specific goal.
- Use a word, phrase, or sentence to accomplish a specific purpose, such as convey a feeling or attitude or illustrate a given statement.

### Organization, Unity, and Cohesion

Examples of knowledge and skills tested include the following:

- Determine the need for transition words or phrases to define relationships in terms of time or logic.
- Determine the most logical place for a sentence in a paragraph.
- Provide a suitable conclusion for a paragraph or passage (for example, summarizing the main idea).
- Provide a suitable introduction for a paragraph or passage.
- Rearrange sentences in a paragraph or paragraphs in a passage to establish a logical flow.
- Determine the most logical place to divide a paragraph to achieve the stated goal.

## Knowledge of Language

Knowledge of Language questions test your ability to clearly and succinctly express yourself in written English. Knowledge and skills tested include the following:

- Revise unclear, clumsy, and confusing writing.
- Delete redundant and wordy material.
- Revise an expression to make it conform to the style and tone used throughout the passage.

- Determine the need for conjunctions to create logical connections between clauses.
- Choose the most appropriate word or phrase in terms of the sentence content.

### **Conventions of Standard English**

Conventions of Standard English questions test knowledge and skills such as the following:

- Determine the need for punctuation or conjunctions to join clauses or to correct awkward-sounding fragments, fused sentences, and faulty subordination and coordination of clauses.
- Recognize and correct inappropriate shifts in verb tense.
- Recognize and correct disturbances in sentence structure, such as faulty placement of adjectives, participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers, faulty parallelism, run-on sentences, and weak conjunctions between independent clauses.
- Maintain consistent and logical verb tense and voice and pronoun person within a paragraph or passage.

**Note:** Spelling, vocabulary, and rote recall of grammar rules are not tested.

### **Mathematics Test**

**60 questions, 60 minutes**

The mathematics test presents multiple-choice questions that require you to use reasoning skills to solve practical math problems. The material covered on the test emphasizes the major content areas that are prerequisites to successful performance in entry-level courses in college mathematics. Some questions may belong to a set of several questions (for example, several questions about the same graph or chart).

Conceptual knowledge and computational skills are assumed as background for the problems, but recall of complex formulas and extensive computation is not required.

Nine scores are reported for the ACT mathematics test: a total test score based on all 60 questions and eight reporting category scores based on specific mathematical knowledge and skills. The reporting categories are:

- Preparing for Higher Mathematics, which includes separate scores for Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability
- Integrating Essential Skills
- Modeling

## Preparing for Higher Mathematics

This category captures the more recent mathematics that students are learning, starting when they begin using algebra as a general way of expressing and solving equations. This category is divided into the following five subcategories:

- Number and Quantity
- Algebra
- Functions
- Geometry
- Statistics and Probability

### Number and Quantity

Math questions in this category test your knowledge of numbers and fundamental math concepts and operations, including the following:

- Perform calculations on whole numbers and decimals.
- Recognize equivalent fractions and fractions in lowest terms.
- Locate rational numbers (whole numbers, fractions, decimals, and mixed numbers) on the number line.
- Recognize single-digit factors of a number.
- Identify a digit's place value.
- Demonstrate knowledge of elementary number concepts, including rounding, ordering of decimals, pattern identification, primes, and greatest common factor.
- Write powers of 10 using exponents.
- Comprehend the concept of length on the number line, and find the distance between two points.
- Understand absolute value in terms of distance.
- Find the distance between two points with the same  $x$ -coordinate or  $y$ -coordinate in the coordinate plane.
- Add, subtract, and multiply matrices (tables of numbers).
- Order fractions.
- Find and use the least common multiple.
- Demonstrate knowledge of complex numbers and multiply two complex numbers.