

# ACT and SAT Overview

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## **Part 1: ACT Overview**

The ACT is a 4-sectioned multiple-choice test given over 3 hours. The test is divided into English, Math, Reading and Science components, with the option of a 5th section, the Essay component. Each section, with the exception of the essay, is strictly multiple-choice and is scored out of a possible 36 points. The individual section scores are then averaged to calculate a student's overall score: the composite score.

### **How is the Test Scored?**

Scores are calculated solely on the number of correct answers. Incorrect answers do not result in any additional point penalties, and unanswered questions are marked as incorrect. Therefore, students should always guess on questions they are unsure of.

The raw scores are then translated to a 36 point scale. This converted score is used when calculating a student's composite score.

The essay portion of the test receives a separate score out of a maximum 12 points. The essay is graded by two readers, each of whom score the essay out of 6. These two scores are then combined for the total essay score out of 12. The essay is optional and is not factored into a student's composite score. Most colleges, today, no longer require the essay.

### **Do Students Have to Submit all ACT scores?**

Most colleges consider the ACT as a "score-choice" test. Students may take the test as many times as they choose, and report ONLY the test dates they choose. Colleges do not see any taken, but unreported, scores. Today, most colleges SuperScore the ACT: students submit two or three exams and the colleges take the highest section scores from each, creating a final Superscore.

### **What is the Format of the ACT Exam?**

- 1. English: 45 minutes**
  - 75 multiple-choice questions testing all areas of English grammar and writing
- 2. Math: 60 minutes**
  - 60 multiple-choice questions testing the understanding of pre-algebra through pre-calculus
  - The math on the ACT is very straightforward math. It goes in order of difficulty, and focuses on algebra, trigonometry, geometry, and exponents.
- 3. Reading: 35 minutes**
  - 40 multiple-choice questions taken from four long reading passages
  - Passages topics are Prose, Social Science, Humanities, and Natural Science

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4. **Science: 35 minutes**
  - 40 multiple-choice questions that test the ability to read and interpret graphs and charts, understand experimental design and draw conclusions from data presented
  - Minimal science knowledge is required for this section
5. **The Essay (optional): 30 minutes**
  - Persuasive essay
  - Tests reasoning, organization and mechanics of writing

## **What is tested in the English Section?**

The ACT English section is composed of 75 multiple-choice questions and assesses your understanding of general grammar, including sentence structure, punctuation and composition. This section presents you with five passages, each with various sentences or portions of sentences underlined. These underlined sections are numbered to correspond with the questions. Students are to pick the answer that is grammatically “best.” (Sometimes there are several grammatically correct answers but one will be better in context than the others.) Students have nine minutes to complete each passage, for a total of 45 minutes testing time.

The English questions can be grouped into “rhetoric” (style) questions and “mechanics” (grammar) questions. The rhetoric questions ask that students rearrange paragraphs, insert or delete various sentences, and choose the most logical transitions throughout the passage. Style questions focus on the cohesiveness and fluidity of the passage as a whole. Mechanics questions assess a student’s understanding of punctuation, sentence composition and sentence structure. This section is similar to the SAT English section.

## **What is Tested in the Math Section?**

The 60-minute ACT Math section is composed of 60 multiple-choice questions that assess a student’s understanding of mathematics through the pre-calculus level. Unlike the SAT math questions, the math questions on the ACT are very classroom-oriented, asked in a direct fashion, and require little, if any, critical reasoning.

The questions are arranged in order of increasing difficulty, 1 being the easiest and 60 being the most difficult. Calculators are permitted on the test, but formulas are not provided, so students should be sure to review basic geometry and trigonometry formulas (these formulas are given on the SAT). Timing is important in this section, because even though students are allotted a minute a question, they must be careful not to spend too long on the easier (first 30) questions, as the second half of the test is more difficult and often more time consuming. Students who are not yet at the pre-calculus level in school can still attain high scores, as only the last few questions of the section will touch upon pre-calculus mathematics.

## **What is Tested in the Reading Section?**

The ACT Reading section consists of four long passages in the following order: a short story (prose), a historical piece (social science), a humanities piece and a science piece (natural science). Ten multiple-choice questions follow each of the passages. These questions are detail oriented and very specific. There are few tone, main idea or inference questions, as opposed to the SAT reading questions. This is an extremely time-intensive section. Students are given only 35 minutes to read all four passages and answer all 40 questions (approximately 8.5 minutes per passage). Just think about it...an 800 word passage, 10 questions relating to this passage and only 8.5 minutes! Ouch!



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## **What is Tested in the Science Section?**

The ACT Science section is composed of 40 multiple-choice questions that assess students' ability to read and interpret scientific charts, graphs and data. The 35-minute Science section usually contains six - seven passages, so students can only spend approximately five minutes per passage. In most cases, six of the seven passages will be strictly chart/graph interpretation. The seventh passage is a reading comprehension passage that we like to call the "Fighting Scientists." In this passage, two opposing viewpoints, theories or hypotheses will be presented, and questions will ask students to compare and contrast the underlying ideas of each. Some assume that because this section is called "Science," extensive understanding of science is necessary. False! The science section DOES NOT require extensive outside scientific knowledge. Information necessary to answer the multiple-choice questions will be presented graphically or in tables, and students must simply find it. Many questions require that students extrapolate data or notice patterns within the charts (i.e. as temperature increases, metabolism increases).

## **Part 2: SAT Overview**

The SAT is a 2-sectioned multiple-choice test given over 3 hours. The test is divided into a Verbal component and a Math component. The Verbal Component contains 2 sub-sections: Part 1 is reading and Part 2 is writing (grammar and rhetoric). The Math component also contains 2 sub-sections: Part 3 is non-calculator math and Part 4 is calculator math. The test also provides a 5<sup>th</sup> section, the Essay component that is optional.

## **How is the Test Scored?**

Scores are calculated solely on the number of correct answers. Incorrect answers do not result in any additional point penalties, and unanswered questions are marked as incorrect. Therefore, students should always guess on questions they are unsure of.

The raw scores are then translated into an 800 point scale. Verbal (Reading + English) = 800, Math (Non-calculator + Calculator) = 800. The scores are added together for a Total Score out of 1600.

The 5<sup>th</sup> section – the Essay – asks the student to read a passage and to discuss how the "author builds his/her claim." This essay is scored out of 12 points and is not factored into the Total score of 1600 points. Most colleges do not require students to sit for the essay.

## **Do Students Have to Submit all SAT scores?**

Most colleges consider the SAT as a "score-choice" test. Students may take the test as many times as they choose, and report ONLY the test dates they choose. Colleges do not see any taken, but unreported, scores. Today, most colleges SuperScore the SAT: students submit two exams and the colleges take the highest section scores from each, creating a final Superscore.

## **What is the Format of the SAT Exam?**

### **Section 1: Reading - 65 minutes**

- 55 multiple – choice questions
- 5 passages – 1 prose and mixture of social science, science

### **Section 2: English –35 minutes**

- 44 multiple-choice questions
- 4 passages testing grammar mechanics and writing rhetoric

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**Section 3:** Non-calculator math – 25 minutes

- 20 questions

**Section 4:** Calculator math – 55 minutes

- 38 questions

(Section 3+4)= 45 multiple choice questions, 13 student-response (grid-ins)

**Section 5:** Essay - 40 minutes

- Read a passage and discuss how author builds his/her argument

**Experimental Section:** Last section. Not all tests contain an experiment, but some do. What is so frustrating for students is that the experimental section does not count towards their score. The experimental will be an added section BEFORE the essay.

## **What is tested in the English Section?**

The SAT English section is composed of 44 multiple-choice questions and assesses your understanding of general grammar, including sentence structure, punctuation and composition. This section presents you with four passages, each with various sentences or portions of sentences underlined. These underlined sections are numbered to correspond with the questions. Students are to pick the answer that is grammatically “best.” (Sometimes there are several grammatically correct answers but one will be better in context than the others.)

The English questions can be grouped into “rhetoric” (style) questions and “mechanics” (grammar) questions. The rhetoric questions ask that students rearrange paragraphs, insert or delete various sentences, and choose the most logical transitions throughout the passage. Style questions focus on the cohesiveness and fluidity of the passage as a whole. Mechanics questions assess a student's understanding of punctuation, sentence composition and sentence structure. This section is similar to the ACT English section.

## **What is tested in the Reading Section?**

The SAT Reading section consists of 5 passages. Readings consist of prose, social science, science, and global passages and contain 65 multiple-choice questions that assesses student's ability to read for tone, main idea, inference, function, detail as well as asks about word choice, word in context, and textual support. The readings and questions are often more difficult than the ACT readings/questions but students are allotted more time (approximately 13 minutes per passage) on the SAT and the SAT questions for the most part go in order.

## **What is tested in the Math Sections?**

Both non-calculator and calculator math is tested. There are 20 non-calculator questions and 38 calculator questions. Questions cover material from Algebra, Geometry, and Algebra 1/Trig. The SAT math questions are not “brainteasers” that present students with ideas they haven't seen before but rather test comprehension of curriculum-based concepts. The SAT expects students to be able to not only write algebraic expressions but also explain the meaning of every part of the expression. For example, if  $c=5t - 28$ : What does  $c$  mean? What does 5 mean? What does  $t$  mean? What does 28 mean? What happens to  $t$  as  $c$  changes? What happens to  $c$  as  $t$  changes? There are more word problems on the SAT than on the ACT



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## Part 3: Chart of Topics on the ACT and SAT

	TOPIC	SAT	ACT
Number & Quantity	Understanding, application and operations with all Real Numbers	✓*	✓
	Radical and Rational Exponents	✓	✓
	Scientific notation	✓	✓
	Factors & Multiples	✓	✓
	Complex Numbers	✓	✓
	Matrices		✓
	Vectors		✓
Algebra	Solve, graph and model multiple types of expressions	✓	✓
	Equations: linear, polynomial, radical and Exponential	✓	✓
	Inequalities	✓*	✓
	Systems of Equations & Inequalities	✓*	✓
	Quadratic and other non-linear Equations	✓*	✓
	Operations with polynomials	✓	✓
Functions	Definition, notation, representation and application of functions	✓	✓
	Linear, Quadratic, Radical and Polynomial	✓	✓
	Exponential	✓	✓
	Trigonometric		✓
	Sequences		✓
	Logarithms		✓



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Geometry	Lines, Angles and Triangles	✓	✓*
	Area and Volume	✓	✓*
	Circles & other conic sections	✓	✓*
	Coordinate Geometry	✓	✓
Trigonometry	Trigonometry of Right Triangles	✓	✓
	Laws of Sines & Cosines		✓
	Unit Circle Trigonometry		✓
Data Analysis	Ratios, proportional relationships, percentages and units	✓	✓
	Center and Spread of distributions	✓	✓
	Apply & analyze data collection methods	✓	
	Probability	✓	✓
	Counting		✓
	Read, interpret, infer and understand data in tables and graphs	✓	✓
	Modeling	✓	✓
	Scientific investigation & experimental results		✓
	<i>Science</i> - Outside Knowledge		✓



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VERBAL

	TOPIC	SAT	ACT
<b>GRAMMAR</b>	Punctuation	✓	✓
	Apostrophes	✓	✓
	Pronouns	✓	✓
	Subject/Verb	✓	✓
	Tense	✓	✓
	Clauses	✓	✓
	Comparisons	✓	
	Parallelism	✓*	✓
	Word choice	✓*	✓
	Diction	✓	✓
	Rhetorical	✓	✓
<b>READING</b>	Main Idea	✓	✓
	Inference	✓*	✓
	Word in Context	✓*	✓
	Tone	✓*	✓
	Detail	✓	✓*
	Function/Purpose	✓	✓



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## Part 4: Am I an SAT or ACT Student?

### Facts:

- ALL colleges accept either test
- Many schools Superscore – highest scores from each section
- Most schools are Scorechoice – you choose what tests to send
- Material ALMOST identical on both exams but material is presented differently
- Learning the material for one exam will help you prepare for the other

### You might be an SAT student if you:

- Like to read. You enjoy making connections, reading beneath the surface, and thinking inferentially.
- Are good at mental math, enjoy word problems, and excel at data analysis.
- Struggle with Geometry. ACT math has three times as many geometry problems.
- Enjoy finding the “tricks” and utilizing strategies.
- Think of testing as a puzzle that needs to be solved.
- Like to complete homework in a relaxed rather than a timed setting.
- Get highly frustrated. ACT scores tend to go up and down; SAT is more consistent.

### You might be an ACT student if you:

- Are a quick reader, thinker, and processor. You are **able to answer questions quickly**.
- Are intimidated by doing math without a calculator.
- Like details and are good at finding these details.
- Enjoy experimental design and quantitative reasoning as well as reading charts/graphs.
- Struggle with vocabulary. (The SAT readings and grammar passages are at a higher reading level and contain more challenging vocabulary.)
- Like straightforward math problems.
- Get extended time.

### How to know for sure:

- Take ACT and SAT diagnostic exams.

**ACT Summary:** Four sections – English, math, reading, science. Each section is graded from 1-36. The overall composite score is an average of the four multiple-choice sections. Although students receive individual scores (out of 36) for each section, it is the overall composite score that most colleges focus on. For example: English = 27 Math = 28 Reading = 29 Science = 30  
Composite =  $28.5 = 29$  (ACT rounds up = BONUS)

**SAT Summary:** Two general sections – verbal and math. Each section is scored from 200 – 800 points. The verbal section contains a reading multiple choice sub-section and a grammar multiple choice sub-section. The math section contains a non-calculator sub-section and a calculator sub-section. The overall score is a TOTAL of the two sections. For example: Verbal = 600 Math = 700  
Total = 1300