

College Entrance Exams: Math 101

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Do your ACT/SAT scores really matter?

SAT Suite of Assessments

YOUR SCORE TODAY

Your Total Score

960 | 320 to 1520

You are in the **51st** percentile

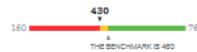


You scored equal to or higher than 51% of students

Your Evidence-Based Reading and Writing Score

430 | 160 to 760

You are in the **31st** percentile

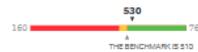


! Your score shows that you're almost on track to be ready for college, but you need to keep building your skills.

Your Math Score

530 | 160 to 760

You are in the **69th** percentile



✓ Your score shows that you're on track to be ready for college.

Your Test Scores*

Reading **23** | 8 to 38

Math **26.5** | 8 to 38

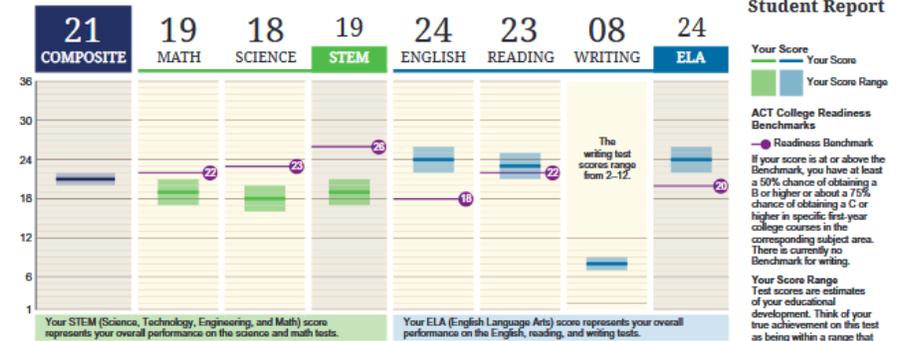
Writing and Language **20** | 8 to 38

* Additional detailed scores, like test scores, provide students with a deeper understanding of their performance. Test scores are also used to calculate your NWISO Selection Index.

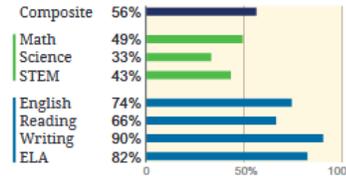
ANN C TAYLOR (ACT ID: -54116290)
WHEAT RIDGE SR HIGH SCHOOL (061-450)
TEST DATE: APRIL 2019



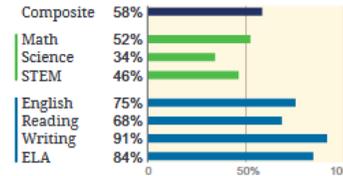
Student Report



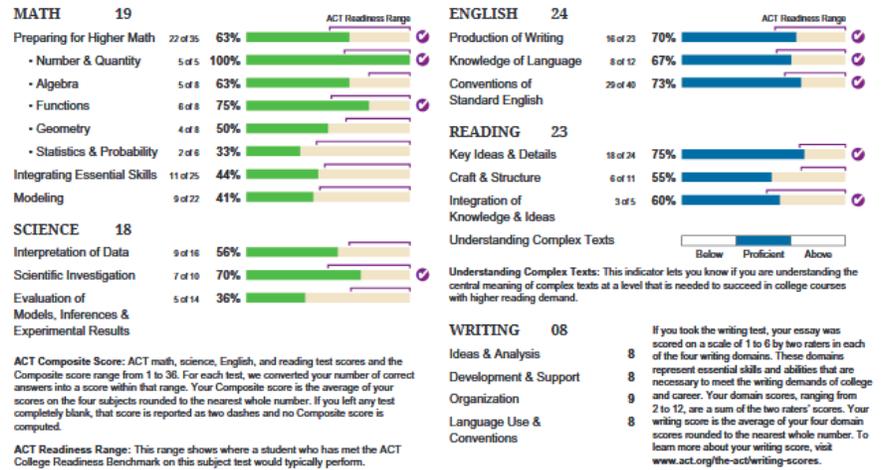
US Rank



State Rank



Detailed Results



What is on the ACT?

Content Breakdown:

- Preparing for Higher Math (57–60%)
 - Number & Quantity (7–10%)
 - Algebra (12–15%)
 - Functions (12–15%)
 - Geometry (12–15%)
 - Statistics & Probability (8–12%)
- Integrating Essential Skills (40–43%)
- Modeling (>25%) Each question is also counted in other appropriate reporting categories above.

[7th – 12th grade curriculum comparison](#)

What is on the SAT?

Content Breakdown:

- Heart of Algebra (33%)
- Problem Solving and Data Analysis (29%)
- Passport to Advanced Math (28%)
- Additional Topics in Math (10%)

[7th – 12th grade curriculum comparison](#)

Does it matter which test we take?

- Accepted tests occasionally vary by college/university – many will accept either
- Major differences in the math section:
 - ACT has more questions on geometry and trigonometry, less time per question, requires that the students know basic formulas, but allows a calculator at all times
 - SAT has more questions on algebra, more time per question, provides some basic formulas, but has a calculator and non-calculator portion of the test
- Students interested in STEM: ACT has more STEM-necessary math topics and also has a science section

When should
you take
them?



To benchmark?

Or to apply?



How do we know if we scored well?

- “Good” scores depend on where you are going
 - Princeton 25th – 75th percentiles:
SAT Math 710 to 800 and ACT Math 31 to 35
 - Alabama State University 25th – 75th percentiles:
SAT Math 420 to 510 and ACT Math 14 to 19
- College Readiness Benchmarks: those who meet them have an approximately 75% chance of earning a **C** or better in the corresponding college course ([SAT](#), [ACT](#))

	Math SAT	Math ACT
College Benchmarks	530	22
2017 Average Scores	527	20.8

Preparing for the Exam

- Don't assume you can wing it
 - Know the testing format
 - Be comfortable with the calculator you can use
 - Do and review practice problems
 - Have a strategy for answering questions (be comfortable skipping, don't panic)
- Be prepared for test day
 - Get plenty of sleep the nights before
 - Eat something good for you
 - Have all the stuff you need in advance (ID, calculators, pencils, etc)
 - Know where you're going and show up early
- Deal with anxiety early (and often)
 - Be prepared
 - Don't forget: God requires faithfulness, not success

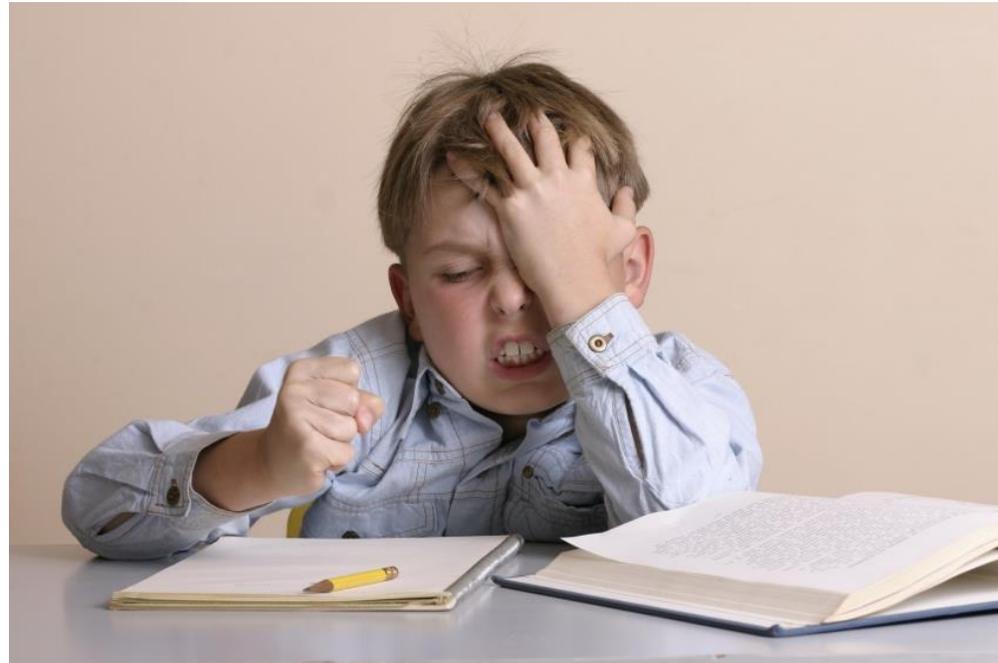
How can we study math to get better scores?

Traditional Method

- review the lesson, watch the video, etc.
- look over the examples worked in the text (only if you know mom/dad/teacher is going to ask)
- do homework problems (as quickly as humanly possible)
- repeat for several lessons
- maybe try some sort of chapter review/chapter test (if you're an over-achiever),
- take a test (usually with questions almost identical to the homework)
- Result:
 - if you "get" math: success (ish)
 - if you don't: utter frustration, doom, gloom, and despair
 - ... then repeat with the advice to spend more time or do more problems

Better Solution
... but first

adjust expectations to avoid frustration



Better Solution
... but first

Adjust
Expectations

- Learning:
 - is HARD work
 - takes mental concentration/intense focus
 - is a skill
- Task completion is NOT the goal: understanding the ideas is
 - Review lesson/listen to lectures/etc.
 - Create study notes – explanations in “English”
 - Work problems to develop accuracy and increase speed

Study Effectively

means learning the right stuff

Understand what math is and is not ... so we can actually be sure we know what success is

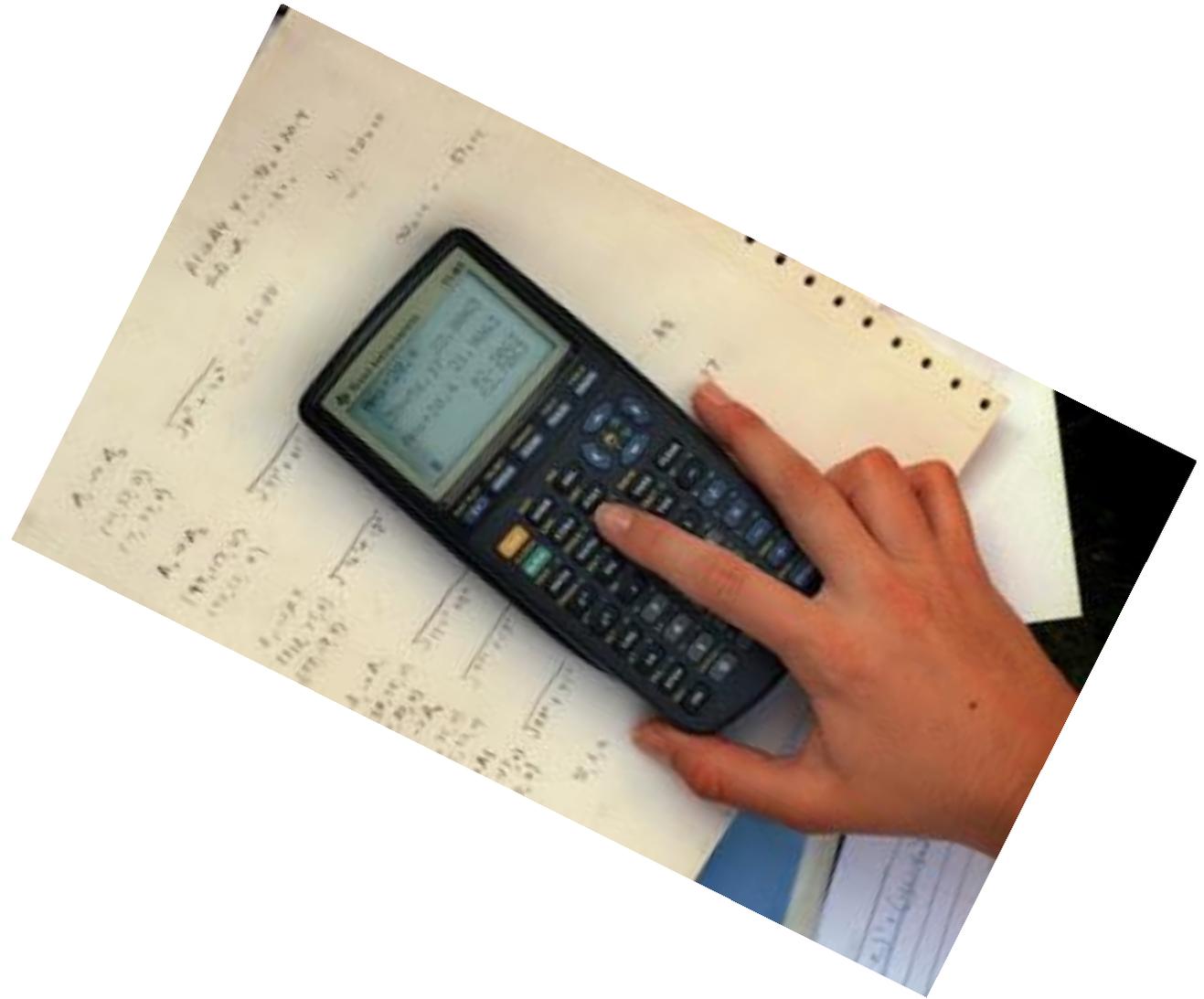
- it **is a process** by which a variety of problems are solved
 - always show your entire process of thinking
 - one line per logical step, working down a sheet of paper
- it **is not a numerical answer**

Some traditions can be improved on ...

- Revision to the agenda
 - read/watch
 - work many problems
 - take a test
- Consider
 - read/watch – but with a new purpose
 - create study notes (1/2 to 1 page per topic – no longer)
 - work problems (possibly not as many)
 - have an oral quiz/teaching session
 - take a test (recommend timed, speed and accuracy both matter)
 - ACT: 60 questions in 60 minutes ... average 1 minute per question
 - SAT: 38 questions in 55 minutes (with a calculator) and 20 questions in 25 minutes (without a calculator) ... average 1 minute, 20 seconds per question

Study
Efficiently

math needs
freedom from
bondage to
calculators



Allocate your math time well

Use homework problems effectively –

There are two ways to learn something:

1. blind repetition (this can take forever) or
 2. purposeful learning with enough repetition to be confident, fast, and accurate
- If your student has “taught” you their math lesson, then assign just enough homework so that they are fast and accurate
 - Perhaps require them to complete ___ of each “type” of homework problem within a ____ minute time period correctly before they can be done

Reward understanding, problem mastery,
and computational speed/accuracy

NOT task completion