

## EVERYTHING YOU NEED TO KNOW TO SCORE 30+ ON THE ACT MATH TEST

Why do many colleges require the ACT for admission to their institutions? If you view a college as a business, then for a college to stay in business it needs to select students who stand a good chance of paying tuition for four years without dropping out because the workload is beyond their capability. Therefore, one of the purposes of the ACT is to determine if an applicant is a “good risk.” Your chances of staying and paying increase as your scores increase. Another purpose of the ACT is to diagnose strengths and weaknesses so college advisors can place students in appropriate programs and classes.

A good score on the ACT is just one of the determining factors in admittance to college. Colleges also look at your grade point average, your contributions to your community and your commitment to your academic goals. This course is designed to help you gain insights as well as confidence so you can increase your score and consequently increase your chances of “staying and paying” at the college of your choice.

Just doing sample test problems without a strategic method does not automatically result in higher scores. No doubt, practice is extremely important. However, miracles do not happen overnight. Analysis, insight, logical thinking and long-term planning are just as important as practice. Above all, the best preparation is eight years of elementary and four years of high school. You began preparing for this test in first grade!

The first thing you must do before you do any preparing or practice is to determine your goals and realistic expectations within your time period. The national average is about 20 and a good score on the math section is 24. A score of 24 roughly translate to 40 correct out of 60. One of the purposes of doing this preparation is to help you discover your own strengths and weaknesses so you can realistically achieve your goals and what you must do to achieve them. You can only expect to make improvements and do well on the exam if you concentrate and make the serious commitment to learn, practice and involve yourself in your progress. The more you practice, the more you are determined to improve, the more you can expect to achieve.

### HOW TO PRACTICE AND BASIC STRATEGIES

When doing practice test, give yourself exactly one hour to finish the exam. Do not do one question at a time and then check the answer to see if you got it right. By correcting yourself only after you have finished the entire test, you will gain a sense of time and learn how to pace yourself. You will know where you are having trouble and discover your strengths and weaknesses. Knowledge of your self is just as important as knowledge of math. Practice so you can identify and enhance your strengths as well as to detect and correct your weaknesses. Other strategies include:

- 1) Answer the easy questions at the beginning first using as little time as possible. The questions get increasingly difficult. Spend less than one minute per question on the first 20-25 questions. This will give you more time on the more difficult ones.
- 2) You get the same credit for answering an easy question correctly as you do for a difficult question. Put your effort on answering those questions that you have a high probability of getting it right.
- 3) Budget your time. **Avoid being stubborn with one question**. Do not get caught in the trap of working on a time-consuming problem. Choose 45-50 questions that you can reasonably get 90% correct.
- 4) Determine what math concept the question is targeting. If you're not confident with the specific math area, skip it and work on questions that you are confident with.
- 5) If the question does not begin with "which of the following," try to solve the problem first then match up your answer with the answers available. However, there are many occasions where looking at the answers and matching back with problem can help you with the correct or quickest strategy. Looking at the choices can also give you a clue to help you solve the problem. If you're stymied, it's OK to work backwards from answers.
- 6) If your answer is not one of the choices, don't panic. Do one of the following:
  - A) Check to see if you are really answering the question asked. Reread the question carefully. The question may ask, "What percentage..." And your answer is a fraction. Check to see if you can change your answer into a different form, e.g. improper fraction to mixed number or fraction into a decimal. **MAKE SURE YOU ANSWER THE QUESTION ASKED.**
  - B) Quickly review your steps. Did you add when you should have multiplied? You may have made a simple mistake. If your search is extensive without results, guess. The time wasted is not worth it.
- 7) If you are doing a lot of computational work on one problem, stop and think. Most ACT type questions rarely require extensive work. Two or even three steps are the usual maximum. Avoid long division. Factor instead. Plug and chug from answers.
- 8) When plugging in values to see if an expression is true, use easy numbers like -2, -1, 0, 1 and 2. To test theories use both positive and negative fractions and integers.
- 9) For geometry questions without a diagram, draw one. For those with a diagram, don't assume it is drawn to scale. Just because angles, segments, etc. look the same doesn't mean they are.
- 10) Some advise to mark the correct answer on your test booklet and then with 5 minutes left, you bubble in all the answers. Time is wasted moving back and forth from your answer sheet to test booklet.