

AP[®] Calculus Terminology

2009 Reading

ARITHMETIC AND ALGEBRA ERRORS: Non-calculus errors.

BALD ANSWERS: An answer without any supporting work is called a bald answer. The allocation of credit for bald answers varies from question to question, but in most cases, students do not earn credit for bald answers.

COPY ERROR: The student makes a minor error in copying a portion of the problem or in copying the student's own work from one line to another. If such an error significantly simplifies a problem, the error can make the student ineligible for points.

ELIGIBLE OR ELIGIBILITY REQUIREMENTS: In some cases, in order for a student to earn additional points in a problem, an intermediate step must meet certain requirements.

OUR PROBLEM: The problem as it is written on the exam.

READ WITH THE STUDENT: Generally speaking, if a student makes an error that does not significantly alter the intent of the problem, the paper is read from that point forward in light of that error. A student may make an error at the beginning of a problem, but still earn most of the points in the problem because the student reasoned correctly from the point of the error forward.

RECOUP: A student loses a point, but corrects the error in some legitimate or reasonable way later in the solution, allowing the student to regain or recoup the lost point.

RESTART OR FALSE START: The student begins the problem, abandons the initial attempt, and starts the problem again, often using a very different or unrelated approach. The student may not cross out the first attempt nor indicate which solution should be graded.

REVERSAL: A student's work may contain $b - a$ rather than $a - b$, where a and b can refer to any type of mathematical object.

0 – 2 – 0 OR 0, 2, 0: This shows you which points have been earned in a sample paper. If you look at the right side of the scoring standard, point values are listed vertically for each part of the problem. In this example, the student did not earn the first point(s), earned two points on the second part, and then did not earn the last point(s).

0/3 OR 3/4: These examples show that a student has earned no point out of the three possible points in the first case, and the student has earned three points out of a possible four in the second case.

AP[®] Calculus Conventions

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The purposes and methods of scoring the AP Calculus Exams can be different from those we, as teachers, use with our own students. Conventions are used to ensure consistency, accuracy, and fairness to the student. We attempt to award each student credit when the student has demonstrated knowledge and understanding of calculus. Below are some of the practices that pertain to reading AP Calculus Exams.

COPY ERROR: Typically a one-point deduction is taken for a copy error, and you should continue to read the student's work for correctness from that point forward. A student may need to meet eligibility requirements in order to receive further credit.

SAYING TOO MUCH: When a student has solved a problem or answered a question completely, but then goes on and does additional work, which may be incorrect, the student has said too much. Depending on the question, a deduction may be taken for the error.

PARALLEL SOLUTIONS: When a student presents two or more complete "solutions" to a problem, without choosing one to be graded, these are called parallel solutions. In such a case, you should read and score each solution. The student's score is then determined by truncating the average of the scores.

CROSSED OUT WORK: Do not read any work that a student has crossed-out or erased.

THREE-DECIMAL-PLACE RULE: Unless otherwise specified, students are instructed to present answers accurate to three digits to the right of the decimal point. If those digits of the student's answer agree with the correct answer (rounded or truncated), then the student's answer is correct. For example, if the correct answer is π , then all of the following are considered correct: 3.141, 3.142, 3.14159, 3.1428. You should read only the first three digits to the right of the decimal point in the student's answer.

NO SIMPLIFICATION NEEDED: An answer (numeric or algebraic) may not be simplified to be given full credit. For example, if a correct solution to a problem results in $e^0 - 4 + 6$, and the student leaves the answer in that form, the student earns full credit.

IMMUNITY FROM FURTHER DEDUCTIONS: In a single problem, errors in decimal presentation or in units, may receive only a one-point deduction for that problem. A decision has been made to penalize a student at most once for repeated errors in decimal presentation or units.

WE DO NOT ACCEPT MERE RECIPES OR FORMULAS: The student must apply the procedure he or she has described to the specific problem at hand.

WE DO NOT READ "CALCULATOR-SYNTAX": In a calculator-active setting, when a student presents a solution to an equation, a value of a derivative, or a value of a definite integral, the setup of that equation, derivative, or integral must be presented in mathematical notation, not calculator syntax.