

Based on six years of reading... the six most common errors I saw were the following

(1) Rounding too much on intermediate steps. If you need to find an endpoint for an integral, do not round it to three decimal places since that will most likely ruin your final answer. Store the whole number in the calculator, or at least use four or five decimal places.

(2) Unnecessary simplification. Leave an answer such as $4 \cdot 5 \cdot 9^{1/2}$ or $\sin(\pi/3)$ or $\sqrt{5^2 - 1}$, rather than risking a boneheaded algebra or calculator mistake. If you do not need the decimal number, do not find it.

(3) Applied problems answered without context. If you are asked about electricity usage, express your answer in terms of electricity usage, and be sure to include UNITS.

(4) Impersonal pronouns. Do not "it" all over your paper. Do not write, "It is increasing because it is positive," write "the function is increasing because its derivative is positive". If there is more than one function present, do not write "the function" or "the derivative". IDENTIFY OBJECTS.

(5) Answering part of a question correctly in the wrong question space. If, while solving 4a, you find the answer to part 4c, either recopy the work and answer into the space for 4c, or better, write "The answer is ... , see the work in part 4a."

(6) Working by hand those computations that your calculator is supposed to do. I cannot tell you how many times I saw students try to evaluate a definite integral such as $\int_0^4 \sin(e^x) dx$ by hand, when a handful of calculator keystrokes would have produced the required numerical answer. Remember the valid uses of a calculator include finding numerical intersection points and the numerical value of a definite integral.

My favorite instruction: READ the PROBLEM. Do the work to answer the question asked. READ THE PROBLEM AGAIN. Did you forget to answer anything or to show anything requested?

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