

The Paragraph-Length Response in AP Physics 1 and 2

A paragraph-length response to a question should consist of a coherent argument that uses the information presented in the question and proceeds in a logical, expository fashion to arrive at a conclusion.

AP Physics students are asked to give a paragraph-length response so that they may demonstrate their ability to communicate their understanding of a physical situation in a reasoned, expository analysis. A student's response should be a coherent, organized, and sequential description of the analysis of a situation. The response should argue from evidence, cite physical principles, and clearly present the student's thinking to the reader. The presentation should not include extraneous information. It should make sense on the first reading.

The style of the exposition is to explain and/or describe, like a paragraph, rather than present a calculation or a purely algebraic derivation, and should be of moderate length, not long and elaborate.

A paragraph-length response will earn points for correct physics principles, as does a response to any other free-response question. However, full credit may not be earned if a paragraph-length response contains any of the following: principles not presented in a logical order, lengthy digressions within an argument, or primarily equations or diagrams with little linking prose.

In AP Physics 1, the argument may include, as needed, diagrams, graphs, equations, and perhaps calculations to support the line of reasoning. The style of such a response may be seen in the example problems in textbooks, which are typically a mix of prose statements, equations, diagrams, etc., that present an orderly analysis of a situation.

In AP Physics 2, the requirement for full credit for a paragraph-length response is more rigorous, i.e., responses are expected to meet the standard of logical reasoning as described for AP Physics 1 but must also be presented primarily in prose form.

To reiterate, the goal is that students should be able to both analyze a situation and construct a coherent, sequenced, well-reasoned exposition that cites evidence and principles of physics and that make sense on the first reading.

