

rubric: How tall is Yao?

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If you want to improve the grade on your assignment you must redo the work correcting the difficulty and answer the two questions posed below. Students with scores below 8 can do the make-up; the maximum score for the repeated work will be 8.

The assignment was to analyze an incorrect argument that I presented. Two points were possible for each of 1a, 1b, 2a, 2b, 2c, and 2d. I decided that the 2d was not clearly enough formulated to be graded.

1. First we study the problem as stated.
 - (a) Explain the flaw in the argument.
 - (b) Demonstrate the flaw in the argument using the graph of an appropriate function.
2. Now we analyze some of the fine points of the presentation.
 - (a) Explain the relationship between the equations in the argument presented above. If you use a technical word like ‘equivalent’, explain in the language of 9th graders what it means.
 - (b) The author used the word ‘or’ three times in stating the problem. What meaning was intended for ‘or’ in this context. Is that a good word to use for high school students? What are some alternatives?
 - (c) How do you justify each step in argument above. That is, why are all (well, almost all) of the equations ‘equivalent’.
 - (d) In fact, where I wrote ‘ H be your height, the author wrote ‘ $H =$ your height’. Can you explain why I made this change?

Further questions:

1. Explain the difference between ‘equivalent’ and ‘implies’.
2. Make up another example of proving a false statement using elementary algebra and identify the error. Don’t make it just like this one; you might, for example, sneak in a division by zero.