

Sufficient Assumptions

- Here are some examples of sufficient assumption questions:
- "Which of the following, if true, allows the author's conclusion to be properly drawn."
- "The author's conclusion follows logically if which one of the following is assumed to be true?"
- We would never see the words "if true" in a necessary assumption question, because in a necessary assumption question, the truth of the answer is implied by the conclusion. In sufficient assumption questions, the answer can be much stronger than the conclusion - as long as it does the job and makes the conclusion perfect, we've got our answer.

Distinguishing Necessary and Sufficient Assumption Questions

- Let's look some questions' wordings and see if you can tell which ones are sufficient assumption question stems, and which are necessary assumption question stems.
- "The author's conclusion follows logically only if which one of the following is assumed to be true?"
- "The author's conclusion follows logically if which one of the following is assumed to be true?"
- "Which one of the following assumptions is required for the author's conclusion to be valid?"
- "Which one of the following assumptions requires that the author's conclusion to be valid?"

Sufficient Assumptions

- Sufficient assumption questions often involve conditional diagramming, and sometimes even almost math-like quantity problems, because it's pretty difficult to make a perfect argument unless it has clear "if...then" statements or some mathematical logic to it.

Sufficient Assumptions and Conditional Reasoning

I. A

_____ : Correct Answer is $A \rightarrow B$, or $\sim B \rightarrow \sim A$
B

II. $A \rightarrow B$

_____ : Correct answer is $A \rightarrow C$, or $\sim C \rightarrow \sim A$
 $A \rightarrow C$

Sufficient Assumptions and Conditional Reasoning: Four Common Formulas

III. $A \rightarrow B$

_____ : Correct answer is $C \rightarrow A$, or $\sim A \rightarrow \sim C$
 $C \rightarrow B$

IV. $A \rightarrow B$

$C \rightarrow D$: Correct answer is $B \rightarrow C$, or $\sim C \rightarrow \sim B$

 $A \rightarrow D$

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Distinguishing Necessary and Sufficient Assumption Questions

- Let's look some questions' wordings and see if you can tell which ones are sufficient assumption question stems, and which are necessary assumption question stems.
- "The author's conclusion follows logically only if which one of the following is assumed to be true? (Necessary)
- "The author's conclusion follows logically if which one of the following is assumed to be true? (Sufficient)
- Which one of the following assumptions is required for the author's conclusion to be valid?" (Necessary)
- Which one of the following assumptions requires that the author's conclusion to be valid?" (Sufficient)

Assumption Questions: June 2007, Sec II

- Sec II, #13 (Sufficient): Quantity Problem.
- Answer is C, the only choice that gives any sort of quantity information about (“all”) L and M.
- D only has information about L, and about what L was made from, and so is not relevant to the conclusion.
- Sec II, #15 (Sufficient)
- Answer is D. C seems good, but because the conclusion mentions a new vaccine “each year”, we need “each” or “every” year in the correct answer.
- Strange, no Necessary Assumption Questions in this lesson.