

Deductive Reasoning/ statement analysis

Introduction to deductive reasoning/ statement analysis

Deductive reasoning is the process of reasoning from one or more statements to reach a logically certain conclusion.

Deductive reasoning questions will require you to use your problem-solving and reasoning skills, by evaluating arguments, analyzing scenarios, and drawing logical conclusions.

In deductive reasoning questions, you must draw conclusions based on only the information given in the question and not your own knowledge. If the conclusion cannot be drawn from the information given, then the conclusion does not follow.

Types of problems

Syllogisms:

The most common types of deductive reasoning questions are syllogisms. A syllogism is a type of logical argument in which a pair of sentences serve as the rules/premises and a third sentence serves as the conclusion.

Example: All crows are black. All black birds are loud. All crows are birds.

Statement: All crows are loud.

A: True

B: False

C: Insufficient information

Answer: A.

Solution: Deductive reasoning questions are rarely that simple and the premises given can also be given less directly, as through a text paragraph.

Arrangements:

Another very common form of deductive reasoning question is arrangements. In arrangements, you are given information about the order of items or people in comparison to one another. You are required to mentally arrange the items/people according to the information given and answer a question based on the arrangement.

Example: Mike finished ahead of Paul. Paul and Brian both finished before Liam. Owen did not finish last.

Who was the last to finish?

A: Owen

B: Brian

C: Paul

D: Liam

Answer: D.

Solution: Mike finished before Paul, so Mike was not last. Paul and Brian finished before Liam, so Paul and Brian were not last. It is stated that Owen did not finish last. Only Liam remains, so Liam must have been last to finish.
