

Deductive Reasoning Practice Exercise

Which is an example of a deductive argument?

- a. There are 25 CDs on the top shelf of my bookcase and 14 on the lower shelf. There are no other CDs in my bookcase. Therefore, there are 39 CDs in my bookcase.
- b. Topeka is either in Kansas or Honduras. If Topeka is in Kansas, then Topeka is in North America. If Topeka is in Honduras, then Topeka is in Central America. Therefore, Topeka is in Kansas.
- c. No one got an A on yesterday's test. Jimmy wasn't in school yesterday. Jimmy will make up the test today and get an A.
- d. All human beings are in favor of world peace. Terrorists don't care about world peace. Terrorists bring about destruction.

Answer

The answer is **a**, because it has two premises and a conclusion that follows logically from them. Choice **b** has three premises and the conclusion does not follow from them. Choices **c** and **d** have conclusions that do not follow the premises.

To be able to detect a deductive argument, and then determine whether or not it is valid, you must be able to figure out what the premises and the conclusion are. Let's look more closely at both of these parts that make up a deductive argument.

Practice Exercise

Which of the following would make the best major premise for a deductive argument?

Remember that the two important factors for the major premise are:

1. It relates two terms.
2. It is stated as a generalization, rule, or principle.
 - a. No one knows if an asteroid will collide with the Earth.
 - b. There are no asteroids.
 - c. Those who believe asteroids will hit the Earth have overactive imaginations.
 - d. Scientists have proven asteroids will not hit the Earth.

Answer

The best choice is **c** because it relates two terms ([asteroids](#) and imaginations), and it is stated as a generalization.

Practice Exercise

Change the following invalid conclusion to make it valid.

You have to be 16 years old to get a driver's license. Abby will be 16 years old tomorrow. Therefore, Abby can now buy a car.

Answer

The conclusion should be: Therefore, Abby can now get a driver's license. The deductive argument doesn't say anything about buying a car.

Practice Exercise

State this example as a syllogism and as a conditional deductive argument.

Brian gives a party every time his team wins, so tonight he'll give a party.