

1.7.1. Truth and Validity Problems

For each of the following claims, state whether it is **true** or **false**. (Use arguments A through D as examples to help in answering the questions.)

(A)

1. Benjamin Franklin was born in Boston.
 2. Benjamin Franklin was the first U.S. president.
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∴ The first U.S. president was born in Boston.

(B)

1. $1 + 1 = 2$.
 2. $2 + 2 = 4$.
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∴ The first U.S. president was born in Boston.

(C)

1. Benjamin Franklin was born in Boston.
 2. Benjamin Franklin was not the first U.S. president.
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∴ The first U.S. president was born in Boston

(D)

1. $1 + 1 = 2$.
 2. $2 + 2 = 4$.
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∴ The first U.S. president was born in Westmoreland County, Virginia.

1. A valid argument could have false premises.
2. If the premises of an argument are true, then the conclusion of that argument is true.
3. If the premises of a valid argument are true, then the conclusion of that argument is true.
4. If an argument has a true conclusion, then the argument is valid.
5. If an argument has true premises and a true conclusion, then the argument valid.
6. If the conclusion of a valid argument is false, then at least one of the premises is false.