

Valid or Not?

1. If today is David's birthday, then today is January 24.
Today is January 24.
Hence, today is David's birthday.
2. If the client is guilty, then he was at the scene of the crime.
The client was not at the scene of the crime.
Hence, the client is not guilty.
3. The days are becoming longer.
The nights are becoming shorter if the days are becoming longer.
Hence, the nights are becoming shorter.
4. If angle $\alpha =$ angle β , then the lines AB and BC are equal.
We know $AB = BC$.
Hence, angle $\alpha =$ angle β .
5. The earth is spherical implies that the moon is spherical.
The earth is not spherical.
Hence, the moon is not spherical.
6. If David passes the final exam, then he will pass the course.
David will pass the course.
Hence, he will pass the final exam.
7. If the patient has a virus, he must have a temperature above 99° .
The patient's temperature is not above 99° .
Hence, the patient does not have a virus.
8. If diamonds are not expensive, then gold is selling cheaply.
Gold is not selling cheaply.
Hence, diamonds are expensive.
9. AB is parallel to EF or CD is parallel to EF .
 AB is parallel to EF .
Hence, CD is not parallel to EF .
10. AB is parallel to EF or CD is parallel to EF .
 CD is not parallel to EF .
Hence, AB is parallel to EF .