

MATH 1200 (SECTION E): IMPLICATIONS

PART A: study the statements and the conclusion that follows them. Circle the response that represents best what you think about each conclusion, and explain your thinking.

QUESTION 1:

Statements:

- If It is raining then sky is cloudy.
- Sky is Cloudy.

Conclusion: It is necessarily true that It is raining.

1. The conclusion is correct.
2. The conclusion is wrong.
3. I do not have enough clues to decide.

QUESTION 2:

Statements:

- If Costas suffered from pneumonia,[then] he would have high fever.
- Costas does not have high fever.

Conclusion: Costas definitely does not suffer from pneumonia.

1. The conclusion is correct.
2. The conclusion is wrong.
3. I do not have enough clues to decide.

QUESTION: A implies B **means** which (if any) of the following?

1. A is true.
2. B is true.
3. A is true and B is true.
4. Whenever A is true then B must be true.
5. Whenever A is false then B is false.
6. Whenever B is true then A is true.
7. Whenever B is false then A is false.

- Which of the following is True or False, why?.
1. Every person in Canada was born in Canada.
 2. Every month has 31 days.
 3. Every positive integer can be written as the sum of two square integers.
 4. If $x^2 < 4$, then $0 \leq x < 2$.
 5. If $x > y$, then $|x| > |y|$.