

Problem 1. Let X mean “I get an ‘A’ on every assignment, quiz, and exam” and let Y mean “I get an ‘A’ in the class”. Which of the following are true?

- A) $X \implies Y$
- B) $Y \implies X$
- C) $X \iff Y$
- D) All of the above.

Solution. A)

Problem 2. If X is true and Y is false, which of the following statements are true?

- A) X and Y
- B) X or Y
- C) X and not Y
- D) B) and C)

Solution. D)

Problem 3. Which of the following mean the same as $X \implies Y$?

- A) If X then Y .
- B) X only if Y .
- C) X implies Y .
- D) All of the above.
- E) A) and C).

Solution. D); E) gets partial credit.

Problem 4. If X is true and Y is false, which of the following statements are true?

- A) X implies Y
- B) Y implies X
- C) Both
- D) Neither

Solution. B)