

A. Answer the following.

1. What is inductive reasoning?

Using a pattern to come up with a conjecture & testing if the conjecture is true/false

2. What is deductive reasoning?

Drawing a conclusion based off of fact, definitions, and previous knowledge

B. Identify the hypothesis and conclusion for each statement.

3. Lynn will go to the homecoming dance if Jack asks her. Hyp.
conclusion

4. If it is March 14th then the math classes celebrate Pi Day.
Hyp. conclusion

C. Rewrite the conditional statement in if-then form. Then write the converse.

4. An apple a day keeps the doctor away.

If I eat an apple a day, then that keeps the dr. away.

converse: If the dr. is kept away, then I ate an apple a day.

5. We are dismissed early if there is a teacher's meeting.

If there is a teacher's meeting, then we're dismissed early.

converse: If we're dismissed early, then there is a teacher's meeting.

D. Determine whether the statement can be combined with its converse to form a true biconditional statement. If so, then write the biconditional statement. If not, then provide a counterexample.

6. If a rectangle has four congruent sides, then it is a square. (T)

If a rect. is a square, then it has 4 congruent sides (T)

A rectangle has four congruent sides iff it is a square.

7. If the sun is shining, then it is not raining.

If it's not raining, then the sun is shining (F)

No biconditional