NAME:_____

1. Rewrite the statement below as a conditional. Then write the converse of the statement and determine the truth value of its converse. If both statements are true, write a biconditional.
   The coordinates of a point in the first quadrant are both positive.

2. Write a biconditional statement combining the Angle Bisector Theorem and its converse.

3. True or False: "If it is cold and rainy, then I won't go" is an example of a biconditional statement.

4. True or False: All biconditional statements are true.

5. True or False: In a biconditional statement, the hypothesis specifies two conditions connected by the word "and".

6. True or False: Mathematical definitions should be written as biconditional statements.

[1] If a point is in the first quadrant, its coordinates are both positive (T). Converse: If the coordinates of a point are both positive, it is in the first quadrant (T). A point is in the first quadrant if and only if its coordinates are both positive.

[2] A point in the interior of an angle is on the angle bisector if and only if it is equidistant from the sides of the angle.

[3] false

[4] false

[5] false

[6] true