Name _____ Hour _____ Date _____

Geometry Notes section 2-2: Biconditionals & Definitions

Conditional: If two angles are congruent, then the angles have the same measure

Converse: If two angles have the same measure, then the angles are congruent

Are both the conditional and converse true? _____

If yes, then we can combine them as a **biconditional**. The two parts of each are joined with the phrase: ***If and only if***

Conditional: If three points are collinear, then they lie on the same line.

Converse: _____ **T or F**

Biconditional: _____

Conditional: If two lines intersect at right angles, then they are perpendicular.

Converse: _____ **T or F**

Biconditional: _____

Conditional: If x = 5, then x + 15 = 20.

Converse: _____ **T or F**

Biconditional: _____

In geometry, we use easily understood terms, such as points and lines, to help us define other, more complex ideas.

Is "a piece of green paper" a good definition for money?

A good definition is a statement that can help you identify or classify an object. Good definitions should be:

- ✓ **Clearly and commonly understood, using terms you've already defined.**
- ✓ **Precise. Avoid the use of vague words like "large," "sort of," and "almost."**
- ✓ **Reversible. Meaning you can write it as a true biconditional.**

Definition: Perpendicular lines are two lines that intersect to form right angles.

Conditional: _____

_____

Converse: _____

_____ T or F

Biconditional: _____

_____

Counter-example: _____

Definition: A square is a figure with four right angles.

Conditional: _____

_____

Converse: _____

_____ T or F

Biconditional: _____

_____

Counter-example: _____

Definition: An airplane is a vehicle that flies.

Conditional: _____

_____

Converse: _____

_____ T or F

Biconditional: _____

Counter-example: _____