Name_____ Date_____

Conditional Statements

1) If I own a horse, then I own an animal.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

2) If today is Monday, then yesterday was Sunday.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

3) If a figure has only three sides, then it is a triangle.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

4) If $6x = 18$, then $x = 3$.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

5) If the measure of a pair of angles has a sum of $90°$, then they are complementary.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

6) If AB + BC = AC, then B is between A and C.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

7) If a figure is a rhombus, then it has 4 congruent sides.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

8) If I am in San Francisco, then I am in California.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

9) If a triangle has one right angle, then it is a right triangle.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

10) If Maria eats guacamole, then she has tasted avocado.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

11) If a ray bisects an angle, then it divides the angle into two congruent angles.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not true, provide a counterexample.

12) If three points are non- collinear, then they are contained by exactly one plane.

What is the hypothesis?_____

What is the conclusion?_____

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

13) If I have a CA driver's license, then I can drive in California.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

14) If two angles are vertical angles, then they are congruent.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

15) If two lines intersect and form a right angle, then the lines are perpendicular.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

16) If an animal is an insect, then it has exactly six legs.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

17) If you voted for president, then you are at least 18 years old.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

18) If the measure of an angle is between $90°$ and $180°$, then it is an obtuse angle.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

19) If it is Saturday, then I do not go to school.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.

20) If M is a midpoint of a segment, then M divides the segment into two congruent segments.

Write the converse._____

If the converse is also true, re-write the original statement as a biconditional.
If the converse is not always true, provide a counterexample.