

Name _____

Hour _____

Identify the hypothesis of the following statement.

1. If an angle measures 38° , then it is an acute angle.

Identify the conclusion of the following statement.

2. If an angle measures 164° , then it is an obtuse angle.

Rewrite the conditional statement in if-then form.

3. I can go to the homecoming dance if I complete all of my homework.
4. You have a fever if your body temperature is 103°F .
5. Don't say anything at all when you don't have something nice to say.
6. A prime number is a number only divisible by one and itself.

Decide whether the statement is *true* or *false*. If false, provide a counterexample.

7. If $x^2 = 16$, then x must equal 8 or -8 .
8. If $m\angle 1 = 127^\circ$, then the measure of the supplement of $\angle 1$ is 53° .
9. If a polygon is a decagon, then it has twelve sides.

Write the converse of the conditional statement.

10. If x is an odd number, then $3x$ is an odd number.
11. If a pentagon is equilateral, then all five sides of the pentagon are congruent.
12. If an angle is a straight angle, then it measures 180° .

Conditional Statements #1

Write the inverse of the conditional statement.

13. If two angles are complementary angles, then they have a sum of 90° .

14. If two coplanar lines intersect, then they are not parallel.

15. If a polygon is not convex, then it is concave.

Write the contrapositive of the conditional statement.

16. If two angles form a linear pair, then they are supplementary.

17. If two segments have different lengths, then they are not congruent.

18. If a triangle is not regular, then it is not equiangular.

Write the converse of each true statement. Decide whether the converse is *true* or *false*. If the converse is also true, combine the statements to write a true biconditional statement. If the converse is false, provide a counterexample.

19. If an angle is a reflex angle, then the angle's measure is greater than 180° .

20. If x is an odd number, then $2x$ is an even number.

21. If two lines are perpendicular, then they intersect to form a right angle.