

Geometry: 3.3 Conditional & Bicaonditional Statements HW Name: _____

Underline the hypothesis, and circle the conclusion of each conditional statement.

1. If you eat breakfast, then you will feel better at school.
2. If two lines are perpendicular, then they form right angles.
3. If two angles are supplementary, then their sum is 180° .
4. If a nonzero number has exactly two factors, then the number is prime.

Write each statement in if-then form.

5. All students at Washington take an English class.
6. All right angles measure 90° .
7. Every dog has four legs.
8. All vertical angles are congruent.
9. All cats chase mice.

Write the converse, inverse, and contrapositive of each conditional statement.

10. If it is Saturday, then school is closed.

Converse: _____.

Inverse: _____.

Contrapositive: _____.

11. If two angles are complementary, then they total 90° .

Converse: _____.

Inverse: _____.

Contrapositive: _____.

12. If a line bisects a segment, then the segment is divided into two congruent parts.

Converse: _____.

Inverse: _____.

Contrapositive: _____.

13. If it rains, then I will not go.

Converse: _____.

Inverse: _____.

Contrapositive: _____.

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

Converse: _____.

Inverse: _____.

Contrapositive: _____.

Write the converse of each of the following conditional statements, and then write the biconditional.

15. If two angles are adjacent, then they share a common ray.

converse: _____.

.

biconditional: _____.

16. If M is the midpoint of AB , then M is between A and B and $AM = MB$.

converse: _____.

.

biconditional: _____.

Re-write each statement in if/then form. For example: “You should say what you mean” could be written as “If you mean something, then you should say it.”

17. Glass objects are fragile.

18. An isosceles triangle has two congruent sides.