

Chapter 2 Test Prep

1. Given a diagram, determine whether you can assume a statement about the diagram. (6 points)
 - a. For example: "Given the diagram, can you assume that M is the midpoint of $\overline{XY}$? Yes or no?"
2. Vocab: match the term with the definition (6 points)
 - i. Postulate
 - ii. Conditional statement
 - iii. Hypothesis (of a conditional statement)
 - iv. Conclusion (of a conditional statement)
 - v. Biconditional statement
 - vi. Inductive reasoning
 - vii. Conjecture
 - viii. Counterexample
 - ix. Deductive reasoning
 - x. Theorem
3. Use inductive reasoning to write a conjecture, and list next item (2 points)
4. Determine if a given statement is true or false. If false, provide a counterexample. (4 points)
5. Know which statements are logically equivalent (2 points)
6. Identify the property that a statement represents (3 points)
 - a. For example: If $XY = AB$, then $AB = XY$ represents the _____ prop. of _____
7. Given a conditional statement, write its converse, inverse, and contrapositive (6 points)
8. Write biconditional statements from a given conditional statement. Know under what conditions can you form a biconditional statement (4 points)
9. Determine whether inductive or deductive reasoning was used in an example (2 points)
10. Deductive reasoning
 - a. Determine whether Law of Detachment can be used from the given information, and if so, determine what you can conclude using the Law of Detachment. (4 points)
 - b. Determine whether Law of Syllogism can be used from the given information, and if so, determine what you can conclude using the Law of Syllogism. (4 points)
11. Rewrite formulas in terms of other variables (similar to problem #18 on group review) (4 points)
12. Use the Linear Pair Postulate and Vertical Angles Congruence Theorem to solve for angle measures given a diagram. (6 points)
13. Write algebraic proofs (10 points)
14. Complete two-column proofs (14 points)
 - a. If given statement, provide the reason. If given reason, provide the statement.
 - b. KNOW ALL POSTULATES AND THEOREMS!!!
 - i. Segment Addition Postulate, Angle Addition Postulate
 - ii. All theorems discussed in chapter 2