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| Vocabulary  Ex. 1 Rewriting in If-then Form  Ex. 2 Inverse, Converse, Contrapositive  Checkpoint  Points, Lines, and Planes  Ex. 3 Using Postulates and Counterexamples | Conditional Statement -  If-then Form (Hypothesis, Conclusion) –  Converse -  Negation (~) –  Inverse –  Contrapositive –  Equivalent Statements -  Rewrite the conditional statement in if-then form.   1. Three points are coplanar if they lie on the same plane. 2. Water freezes at temperatures below 32°F. 3. An even number is divisible by 2.   Write the Inverse, Converse, and Contrapositive of the following statement:  *If the sun is shining, then we are not watching TV.*  Inverse:  Converse:  Contrapositive:  Write the Inverse, Converse, and Contrapositive of the following statement:  *If my allowance increases, then I can save more money.*  Inverse:  Converse:  Contrapositive:    Decide whether the statement is TRUE or FALSE. If FALSE, give a counterexample.   1. A point can lie on more than two lines. 2. Three lines can intersect at no more than three distinct points. 3. If two lines are coplanar, then they intersect.   Note: A Counterexample could be a definition, math fact, picture, or anything else that can show a statement is FALSE. |