NOTES 2.1: CONDITIONAL STATEMENTS

Objective:_____

_____

CONDITIONAL STATEMENT:

HYPOTHESIS:

CONCLUSION:

EXAMPLE 1: State the hypothesis and conclusion of the conditional statement below. *If you have no more than two absences and a B-average, then you can be exempt from your final.*
Hypothesis:
Conclusion:

EXAMPLE 2: Rewrite the statement below as a conditional statement, then state the hypothesis and conclusion. *A car with poor brakes is a menace on the highway.*
Conditional:
Hypothesis:
Conclusion:

EXAMPLE 3: Rewrite the statement below as a conditional statement, then state the hypothesis and conclusion.
Mrs. Ellison gives her students homework on days that end in 'y'.
Conditional:
Hypothesis:
Conclusion:

CONVERSE STATEMENTS:

EXAMPLE 4: State the converse of the conditional statement in EXAMPLE 1.
Converse:

EXAMPLE 5: Write the converse of the conditional statement below, then tell whether its TRUE or FALSE.
If an angle has a measure of $120°$, then it is an obtuse angle.
Converse: **TRUE   or   FALSE**

COUNTEREXAMPLE:

EXAMPLE 6: Give a counterexample for the converse statement in EXAMPLE 5.
Counterexample:

Notes 2.1 (Continued)
NEGATION:

INVERSE:

EXAMPLE 7: Write the inverse of the conditional statement below.

If you pass the STAAR test, then you will graduate.

Inverse:

EXAMPLE 8: Write the inverse of the following statement. Determine if the inverse is true or false. If false, give a counterexample.

If school is in session, then it is a weekday.

Inverse:

TRUE   or   FALSE

Counterexample (if necessary):

CONTRAPOSITIVE:

EXAMPLE 9: Write both the converse and the contrapositive of the conditional statement below.

If you run a red light, then you are breaking a traffic law.

Converse:

Contrapositive:

EXAMPLE 10: Write the contrapositive of the conditional statement below, then determine if it is true or false. If false, give a counterexample.

If you ask to leave the classroom, then you must present your ID.

Contrapositive:

TRUE   or   FALSE

Counterexample (if necessary):

EXAMPLE 11: Write a conditional statement for the statement below, then write its converse, inverse, and contrapositive.

Seniors must pass English IV in order to graduate.

Conditional:

Converse:

Inverse:

Contrapositive: