**Notes: CONDITIONAL STATEMENTS**

**Content Objective:** I will be able to identify the hypothesis and conclusion of a conditional statement and formulate my own conditional statement.

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<th>TERM</th>
<th>DEFINITION</th>
<th>EXAMPLE</th>
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<tbody>
<tr>
<td>CONDITIONAL STATEMENT</td>
<td>A statement written in __________ format</td>
<td></td>
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<tr>
<td>HYPOTHESIS</td>
<td>The phrase following but NOT INCLUDING the word _____</td>
<td></td>
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<tr>
<td>CONCLUSION</td>
<td>The phrase following but NOT INCLUDING the word _____</td>
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**EXAMPLE 1:** State the hypothesis and conclusion of the conditional statement below:

If you have no more than two absences and a 90-average, then you can be exempt from your final.

*Hypothesis:*

*Conclusion:*

**QUICK CHECK:** State the hypothesis and conclusion of the conditional statement below:

If the sun shines bright, then you will need sunblock.

*Hypothesis:*

*Conclusion:*
EXAMPLE 2:  *Rewrite the statement below as a conditional statement, and then state the hypothesis and conclusion.*

A car with poor brakes is a menace on the highway.

**Conditional:**

**Hypothesis:**

**Conclusion:**

**QUICK CHECK:** *Rewrite the statement below as a conditional statement, then state the hypothesis and conclusion.*

All successful athletes are dedicated to practicing hard.

**Conditional:**

**Hypothesis:**

**Conclusion:**
EXAMPLE 3: State the hypothesis and conclusion of the conditional statement below:

If $5x - 1 = 9$, then $x = 2$

Hypothesis:

Conclusion:

QUICK CHECK: State the hypothesis and conclusion of the conditional statement below. Then solve for $x$.

If $6x + 3 = 9$, then $x = ?$

Hypothesis:

Conclusion:

$x = \underline{\hspace{2cm}}$
EXAMPLE 4: State the hypothesis and conclusion of the conditional statement below. Then complete the algebraic proof by choosing the correct responses from the box.

If \( 3x + 4 = 13 \), then \( x = 3 \)

Hypothesis:

Conclusion:

<table>
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<tr>
<th>Given</th>
<th>( 3x/3 = 9/3 )</th>
<th>( x = 3 )</th>
<th>Simplify</th>
<th>( 3x + 4 - 4 = 13 )</th>
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<tr>
<td>Simplify</td>
<td>( 3x = 9 )</td>
<td>( 3x + 4 - 4 = 13 )</td>
<td></td>
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</table>

1. \( 3x + 4 = 13 \)

2. 2. Subtraction property of equality

3.

4. 4. Division property of equality

5.

QUICK CHECK: State the hypothesis and conclusion of the conditional statement below. Then complete the algebraic proof by choosing the correct responses from the box

If \( 4x - 1 = 2x + 9 \), then \( x = 5 \)

Hypothesis:

Conclusion:

1. 1.

2. 2. Addition property of equality

3. \( 4x = 2x + 10 \)

4. \( 4x - 2x = 2x - 2x + 10 \) 4. Subtraction property of equality

5.

6. 6. Division property of equality

7. \( x = 5 \)